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To tell you how to
INSURE GREATER SECURITY, RECEIVE STEADY ADVANCEMENT, MAKE YOUR
WORK MORE USEFUL *and* INCREASE ITS INTEREST

In Fact How To
UPGRADE ANY JOB

OCCUPATIONS UNLIMITED

By
EDWARD S. JONES

DEAN OF STUDENTS AND DIRECTOR
OF PERSONNEL RESEARCH
UNIVERSITY OF BUFFALO



1948

FOSTER & STEWART PUBLISHING CORP.
Buffalo, New York

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FOSTER & STEWART
PUBLISHING CORPORATION
210 Ellicott Street
Buffalo 3, N. Y.

OTHER BOOKS BY EDWARD S. JONES
IMPROVEMENT OF STUDY HABITS, 5TH ED.
COMPREHENSIVE EXAMINATIONS IN AMERICAN COLLEGES
1931

ARTICULATION OF HIGH SCHOOL AND COLLEGE
EDITOR OF 2 VOLS. UNIVERSITY OF BUFFALO STUDIES,
1934, 1936

Printed in the U.S.A. at  Airport Press, Buffalo, N. Y.

Foreword

This volume is intended as an answer to those who look around them and say "there are not enough jobs". True, some occupations are hard to enter. Many require long periods of training. On the other hand employers are looking continually for the right person for a good opening, or are ready to recognize an entirely new field when a useful service is evident.

The book is non-technical, intended for the reading of high school and college students, or their parents. It should also serve to stimulate guidance workers in high school and the personnel staff of a college. It furnishes a new type of job analysis for personnel offices in industry or the man who wishes advancement on his own merit. In the last chapter particularly there are illustrations of developing fields of occupation which are hardly recognized in some communities. New budgets may be necessary, or different attitudes towards the good life. These are only a few suggestions among many that might be made.

This book is obviously intended for ambitious and fairly able people.

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CHAPTER I. INTRODUCTION—JOBS ARE FLEXIBLE

EVERY job which is standard enough to have a name or classification has a potential top and bottom level of efficiency. The top level is merely an abstraction; it is never reached. The bottom is easier to locate. It is that degree of efficiency just barely acceptable in our society, relative to the job market in that society. For example: I have known two or three teachers who hated their jobs. They were functioning mainly as guards in a class room, with pupils who were completely unstimulated, learning to hate books and all that is connected with education. If such teaching could be measured, it should actually be described as below zero, since such teaching probably does more harm to mankind than no instruction at all. It might even encourage a revolt against education.

An insurance man was actually so inadequate that for months at a time he could make no new sales. When a war-industry position was open, he jumped at it, since he was already below the lowest level for his family's support. The same variations of bottom efficiency and superior achievement

pertain in almost every field, in managing a grocery store, in a gas station, just as truly as in medicine or law or social work. If there is a law or custom protecting tenure of office, the lowest surviving level of occupational efficiency is probably lower than it would be otherwise. For this reason, teaching in a grade school for a teacher who has protective tenure of office, or the work of a government clerk who has attained fixed status through civil service examinations, may reach a very low point of efficiency.

Perhaps we can refer to an occupational quotient, or O.Q., as the ratio between a man's actual accomplishment in a particular field, and that which is expected of him (or average success). A high O.Q. would mean that he is lifting his occupation to much higher levels of effectiveness than would normally be expected. Such a man **up-grades** the job in which he is working, and, because of this, it becomes a very different job. A job analysis would reveal new functions that are tapped, new modifications of behavior which arise.

Occupational up-grading is not an entirely new idea. For many centuries, men have talked or written about efficiency. In fact, a Greek slave, Epictetus, wrote an important book on this subject. But too many people have the idea that the job remains essentially the same even when we are more efficient. Actually, in many cases the entire nature of an occupation may change radically, and yet be called the same job. Let us take the example of an exceptional teacher with an O.Q. of 150 or higher, far above normal expectations.

In a city high school there is such a teacher of English. She is the chief stimulant in sending all her able students on to college. She excites great interest in the literature covered during the last two years of high school English. She requires well-written senior papers of a least 10,000 words of each graduate, with an extensive bibliography properly annotated.

The writing of this paper also assumes extensive use of the school and municipal library. The students enjoy writing this paper, which is placed on exhibition in the school library. She sets a standard for appreciation of poetry and other great literature by reciting and interpreting samples before the classes. But she skillfully chooses the kind of literature which will appeal to them. Above all, she is intensely interested in their intelligence, their attitudes, and their interests. Her up-graded teaching activity includes the yearning to vitalize students for better citizenship. To say that this teacher has the same job as the other teacher mentioned in the first paragraph is misleading and incorrect. The occupations have the same name. In no other major respect is there a similarity.

Two druggists have the same general occupational designation: they manage pharmacy stores. However, with regard to all the main functions of their job there appears a decided difference. The plus man with a high O.Q. carries on a variety of different activities about which the minus man may be indifferent. He keeps up to date on orders of all essential drugs, he keeps a clean, well-lighted store, he is meticulously accurate in filling prescriptions, he jollies his customers enough to create an atmosphere of good will so that people enjoy purchasing from him, he arranges window displays, and he may recommend savings in package sizes of drugs and various household accessories to fit the best needs of his customers. He is a helpful public servant and his business grows in proportion to his usefulness. His fellow pharmacist, on the other hand, may represent the reverse of every one of the traits and activities mentioned above. He depresses his customers, is irritable, slovenly, and out of date.

Professional Occupations

What is a profession? Can a particular occupation be referred to as a profession merely by forming an association,

or through various restrictions on its membership? These are questions constantly raised in engineering and other borderline fields. The problem is purely academic and artificial unless one wishes to codify a given definition into law. An occupation may be called a profession without half of its members operating as professional men. Similarly, some workers, in fields not ordinarily thought of as professions, may exhibit thoroughly professionalized attitudes. I have known some insurance salesmen who were much better professional men than are many lawyers, or doctors.

Occupations generally require three standard qualities to be regarded as professions. Firstly, a substantial amount of education or knowledge is expected—well beyond high school. Secondly, the idea of service to the public is generally implied, or a sense of responsibility to one's community and to the welfare of its citizens. Perhaps bankers and business men are not usually regarded as professional because they are typically too eager for personal profit. Thirdly, professionalization implies some definite organization of members, with standards or codes, educational or otherwise, to prevent malpractice and to insure reliability to the public. This membership in a group brings to a professional man a sense of status. If one accepts these three criteria of a profession, one can find little support for any permanent designation of occupations as professions. And yet we find many occupations that are still generally regarded as profession—ministry, law, or teaching,—even though many ministers are poorly educated, many lawyers are totally blind to public service, and teachers cannot co-operate on programs of teacher training or any other schemes for collective advancement.

It is safer to speak of professionalizing occupations which are not ordinarily called professions. A research man in a chemical plant, for example, has, usually, an excellent educa-

tion, and a fine purpose to create useful materials. Also, he belongs to learned associations which are more interested in advancing knowledge than in the financial status of its members. Moreover, many an insurance man or real estate dealer, or mortician, or city mayor, or government inspector may attain the attitude of a truly professionalized person since the jobs themselves and the attitudes accompanying them are flexible and capable of great expansion.

In nearly every occupation there are quality or high-type workers who are operating far more efficiently than is required as a minimum by society. If we examine the various aspects of a professional career, we can think of them as ideal components of purpose, pointing upward and beyond the narrow limits of the job. As indicated above there is the intellectual or knowledge factor. Each man of quality is looking ahead trying to keep abreast of the highest standards and, if possible, to improve them. Also, he enjoys being intellectually stimulated.

Secondly there is also the service factor which all of us would want as an ideal for all jobs. The service ideal may alter an occupation, as in the case of the insurance business. As soon as an insurance salesman, often called an insurance broker or life underwriter, becomes convinced that he is not merely making money for himself, but is also doing a great service to the man he is interviewing, he is up-graded thereby. It will make him want to know more about a family, its welfare and future prospects. The type of policy he sells will depend not on how much money he himself can make, but what is to the best advantage to the family. Similarly, in automobile selling the attitude of genuine interest in what the family can afford brings about a different horizon in the outlook of the salesman. It gives him confidence in his actual worth to the community.

Thirdly there is a status component, bringing a sense of in-

dependence and a recognition of worth by one's associates. Status for a particular job is not an empty or unimportant aspect of that job. Men will often struggle more energetically for status than for any other goal, since it affects the social standing of their families as well as themselves. It is an important reason for veering away from many positions which would otherwise be very interesting. Consider the possibilities attached to domestic labor in connection with a brilliant and interesting family. Why should most educated people shun the thought of serving in such a household? They would have the best of food, good pay, probably security. They would have many responsible decisions to make, such as to advise children on the type of clothing, food and drink in their everyday existence. They could completely alter a child's personality. The average educated American shuns this kind of work for only one reason—it seems to be degrading and does not have a satisfying social status.

The attainment of suitable status in the routine of a particular occupation is often a matter of attitude. A young purchaser working for a large grocery chain became discouraged because he had not been promoted as much as he had expected. He was given small jobs, often checking the work of managers of small stores. He was a "glorified stock clerk," he told his friends. When he was told that he was being prepared for the complicated and highly responsible job of buying carload lots of food merchandise, that he was being given a rare opportunity to get instruction from many people, seeing how successful merchandisers differed from failures, and that he was not yet ready to take the responsibility for important decisions, he decided that he was indeed fortunate. Sound professional training often means not only a good educational background, but an extensive period of apprenticeship.

To show the beginnings of professionalized attitudes, it

might be worthwhile to exhibit the comparison between two men in an occupational field which offers a very wide range of accomplishment, that of the gas station manager. While the occupational designation remains nominally the same, the cluster of specific jobs possible to accomplish is vastly different.

Operator A is a good example of a low-level, barely-passing, gas-station manager. He is working on a salary-plus-bonus basis for a large oil company and ordinarily has no assistants. He is nearly fifty years of age, converses poorly, and apparently does his work very grudgingly. He rarely cleans windshields or offers to inflate tires, and is constantly harping on the inclement weather or his misfortunes. If one analyzes his particular cluster of jobs they could be enumerated as follows:

- 1) Fills tanks when people drive up.
- 2) Makes necessary change.
- 3) Does occasional greasing but this is undertaken without confidence, and gives no assurance to the owner that it is all right.
- 4) Knows and cares little about a car, offers no suggestions.

Operator B, on the other hand, is in charge of a large station covering four times the area of that of the first operator, and he has from two to five permanent employees. He leases his own station, and, although his sales are primarily of one brand of petroleum products, he does sell more than one kind of gasoline. He is usually bubbling with wisecracks and cheerful conversation. He knows many people by name and encourages them to be informal with him. He works about twelve hours a day and spends most of his time handling the following jobs:

- 1) He cheerfully waits on people, often running from one place to another and conversing with everyone.
- 2) He watches his assistants, encourages them to be good-

humored and occasionally teaches them to do something more easily.

- 3) He offers to clean windshields and check tires.
- 4) He sells large quantities of accessories, such as batteries, tires, lights.
- 5) He arranges for recapping tires, and he advises people where to go for various repairs.
- 6) He knows a good deal about cars and gives suggestions with confidence.
- 7) He makes various minor repairs in cars, but stays within the bounds of his qualifications and never feels above suggesting a garage for more important repairs.
- 8) He keeps an accounting system for his various purchases of supplies and for his payment to assistants.
- 9) Customers occasionally ask his advice on their purchase of a second-hand car, or a car radio, but he tries not to waste time talking idly. He is a busy and successful merchant who enjoys his work and can expect to make a good living—four or five times as much as the A type of operator.

But why bring up the question of selling gasoline in connection with this discussion of professional work? To be sure, the occupation is not a publicly accepted profession, but in certain respects Operator B has professionalized his job. He is intellectually alert, using a considerable store of information to manage his station. A high school graduate, he gets along satisfactorily with well-educated customers, and he has picked up a fair amount of technical information with regard to automobiles that they do not know. He represents a genuine service at its maximum, since he realizes that his entire success is based on the trust that people place in him. To a surprising degree, he has elevated his status in the community. As indicated above, many people trust him more than they do any

garage mechanic or automobile agency in the city. Furthermore, he is, of necessity, part teacher, constantly supervising his assistants. He is an institution in himself, drawing to him anyone who wants gasoline, petroleum products, or other accessories.

It might be said that Operator B has been idealized and glorified beyond all justification. This may be true, but no more so than in the case of a doctor, or a minister. Anyone who is looked up to as a beacon light or guide develops a status which attracts respect and idealization. Conversely, in the case of a recognized professional man, if he does not inspire confidence and trust and does not show the minimum of interest in the service, there will be hollowness in the word "profession." The lawyer who deliberately misstates legal phrases to scare an opponent into agreement, the doctor who lets himself slip thirty years behind the time, the minister who cannot hold his congregation, all bear evidence of the flexibility of occupations ordinarily in the public trust.

Quite apart from the nature of the actual job-cluster or the normal income of a job, various other factors can stretch the job's status. The naming of it is important since a standard, professionalized name brings its own degree of status. The recent expansion or retraction of the field may have an effect, along with the publicity it has received in educational centers. For example, few may have thought of the actuary or the research chemist as a professional man until recently when considerable attention has been drawn to the importance of the actuary to insurance companies and to the importance of research in the life and expansion of a chemical industry.

The rise and fall of the industrial cycle may also have an effect on the professional status of a particular occupation. In normal or prosperous times there is no question about the status, the earning power, and the usefulness of the architect,

but no occupation is more seriously affected by a depression. H. Clark's figures show a drop of earning power from a \$5,000 yearly average income during the best years of the past decade to less than \$1,500 for the worst year of the decade, and the attitude towards architects changes correspondingly. In a slump, few houses or other buildings are erected, and men are likely to wonder why the architect is important.

The attitude towards a professional group will depend also on the cohesiveness of the group, how well the group succeeds and how much it is motivated by common interest. Engineers have undoubtedly suffered in this regard. They have operated in numerous areas, a dispersion which is a partial result of the many varieties of engineering. Fifteen groups of classified engineers and many others not classified are listed in the *Journal of Engineering Education* (Oct. 1943) as attending four-year engineering colleges. Dr. Karl Compton and others have talked about the "engineers' struggle for a professional spirit." In part, this lack of cohesiveness has been because of the willingness of many competent engineers to withdraw into narrow channels of work, apart from others, neglecting a true upgrading of their field. A man who is given the primary job of improving machines for winding golf balls, for instance, may recognize that he has a very restricted occupational area. He may forget all about other allied fields and become timid about association with other engineers. In this same connection, farmers are rarely listed as professional workers largely because their standards are so variable and they do not pull together cohesively.

The moral purpose of a group has also affected the status of an occupation. This quality is directly associated with service to the public. Political workers and salesmen are most frequently accused of unsocial activities, but bankers, advertisers,

and lawyers have all been abundantly blamed for their disregard of the public good.

The addition or subtraction of important functions will also have a bearing on the status of an occupation. An industrial personnel man may have his activity restricted to a very few jobs: deciding who should be allowed vacations, or whether a man should be paid on the minimum-pay basis or a little higher. Hundreds of white-collar defense workers, who had been called personnel men, not only degraded themselves but hampered the growth of a professionalized group of personnel experts because they had never been broadly trained in any one field.

Social workers have shown a marked improvement in their status as professional citizens, largely through a more comprehensive vision of what a social worker could do, and through a strong emphasis on educational and experience backgrounds. Up until the 1930's, the majority of people involved in dispensing charity and in managing relief measures and social community houses were political appointees or else well-meaning, poorly-trained social workers with little regard for the possible value to the community of a thoroughly professionalized social worker.

In the evolution of the social worker the following developments must be recognized: (1) General educational up-grading to the college-graduate level. (2) Professionalized training beyond college, for one or two years, with many people attaining the Ph.D. level. (3) A specialization of experts within the group, including such specialists as family case-workers, community group-workers, psychiatric social-workers, probation officers, etc. Far more important than the additional educational requirements have been the actual job expectations of social workers. For example, a well-trained and well-ad-

justed family case-worker's activities would include the following:

- 1) Calling periodically on the homes of a restricted group of families.
- 2) Knowing the activities of each member of the household, often through extensive search and by various techniques of verification.
- 3) Asking for family budgets and advising on methods of budget-making and household accounting.
- 4) Advising parents regarding the education and the work prospects of their youngsters, often locating jobs.
- 5) Giving advice on diet and food economies.
- 6) Encouraging various members of the family to have wholesome recreation, to join clubs, and to co-operate with one another.
- 7) Being a good friend to each client.
- 8) Keeping a good case history which includes: health items, previous work habits, and many other important notes for future reference.
- 9) Recommending monetary relief for the purchase of needed articles for the home.
- 10) Looking into rumors about family delinquencies.
- 11) Listening to the family squabbles which may arise and discerning whether they affect the welfare of the group.

Factors Operating to Degrade Occupations

In any thorough consideration of occupational improvement, one method of analysis is to note in what ways jobs may be degraded. There are many pitfalls in our civilization of which every guidance worker should be aware and against which every promising, alert high school and college student must set himself. If one can be alert for the symptoms of oc-

cupational decay, he is more likely to combat them effectively.

Of great significance is the fact that in our industrial era there is the inevitable attempt of every industrial and mechanical engineer to replace variable hand work by machinery. Hardly a single industrially-productive job has escaped this influence. Glass blowing used to be a skilled operation requiring years of training before perfection could be obtained, a job which earned at least a dollar per hour when this sum represented high earning capacity. In recent years as low as thirty-five cents per hour has been paid to semi-skilled operators who actually turn out far more work, but under mechanical controls. Similarly, one can see the passing of skilled molders, of die-casting experts, and of cabinet makers. When a control shelf or limiting barrier is placed in a machine, whether the machine is a drill press, a lathe, or a milling machine, the result will be significant. There will be an economy of time, more freedom from injury to the worker, and greater freedom to talk to others.

The skilled worker is now in a great many cases forced out of competition by specialized machine production. Even in such difficult and variable occupations as watch repair work or dentistry, the emphasis is changing from manual dexterity to knowledge of the article and its functions, how it was constructed. Replacement is more often thought of than repair, a good example being the case of watch parts. The dentist knows much more than his predecessors of a generation ago concerning the general health of his patient, as well as more about plastics, cements, and good tools. Actual manipulation is perhaps less important. Skilled operations therefore have changed from variability in manual ingenuity to standardization and precision in line with science, as represented by the following table:

Former Emphasis	Present Emphasis
manual dexterity	machine manipulation
ingenuity in repair	replacement of parts
common sense	knowledge about many ramifications, with short specific training
long apprenticeship	high-school, and/or technical education
common-school education	

Many professional workers would argue that we are going too far away from manual manipulation in many occupations, and from the concept of variability to suit a particular need. Artistry is necessary to fit the color and shape of teeth to a particular person. Many old watches cannot be repaired by modern replacements, they must be worked on cautiously. It is this wholesale neglect of skill in all industrial fields which frightened many of our industrialists in the beginning of the war. Serious shortages appeared, most of which required extensive specialized training to combat. The reversion to normal industrial life may take retraining of a different type since a rapid development of all-around, skilled personnel is impossible.

Standardization is a closely related factor which may degrade occupations. The field of pharmacy is a good illustration. Before the era of the packaged drugs, the pharmacist was the judge of nearly all the compounds which went out of his store. He prepared each prescription and the health of his customers depended on his accuracy. Over two decades ago the large drug companies began to mix their own compounds for sale in packages and bottles, and soon the great majority of medicinal mixtures were available on the stock shelf without requiring careful individual preparation by the pharmacist. A real slump in the pharmacist's status was in the offing, his only temporary recourse being to make up lost money from prescriptions in the sale of general merchandise. At present, the pharma-

cist's importance has grown in value, however, since there has been such an increase in sulfa drug preparations and other powerful agents which require a specialist's care and expert merchandising.

Plumbers also seemed for a time to be on the down grade so far as occupational status was concerned, largely because of the increasing number of standardized parts. Repair was unnecessary if new parts could replace the old. Also, more durable metals required fewer repairs. However, to compensate for these tendencies, higher standards of plumbing fixtures are now required, and more attention is paid to state sanitary laws and local requirements. Some plumbers have entered the new field of air conditioning, by altering family furnaces, and others have expanded into different areas.

Standardization of selling methods in the five- and ten-cent stores or in the cash-and-carry groceries may have depressing effects. According to one sales girl who had worked in a small-town general store, "I simply couldn't stand it to be cooped up at one counter. I had to get away. I felt that I was just a machine making change for ten-cent purchases." Others, however, do not object. They find enough variation in their customers to make up for standardization in articles.

The engineer's drive for job-analysis has in many cases interfered with freedom and variability in a job. The classical illustration is the work of Gilbreth on brick-laying. Before his alteration of the job, he recognized nineteen district movement-activities, or, as he called them, therbligs, which he recognized as units of work. When he had reorganized the occupation through care in the placement of materials, and through the aid of an assistant, the job as a whole was reduced to four therbligs. On the face of it, such a conversion would seem to be a great advance, but in many cases workers have reported that stereotyping their job has a deleterious, deadening effect.

The writer visited a salt factory in western New York in which the manager claimed a great increase in efficiency over a two-year period of subjection to an engineer's analysis—in fact, to the application of industrial engineering principles by five full time engineers. He said that during this time they had reduced their employees from over 300 to less than 200 and were now producing more salt than ever. They had modernized the plant. So far so good. Much of the work had been facilitated by the introduction of machinery. However, it was possible to detect a driving speed and worry in many of the laborers, since each man became generally apprehensive that he would be next to leave. The overall picture of the plant was not too encouraging. The tension produced by the insecurity and the increased speed had replaced the more wholesome tension of heavier and less automatic labor.

Many farmers coming to the city have been depressed by the prevalence of highly partitioned jobs of narrow scope in urban factories. Actually, they had far greater possibilities for inventiveness, for benefiting by extra exertion, for variety and freedom when they were on the farm. The job analysis techniques of modern industry have subdivided and devitalized jobs so that few employees can feel much pride in their work.

Finally, there is the disruption of apprenticeship methods, and the introduction of various subterfuges which may bring a caste system into an industry without any systematic training of young workers. For example, a chemical-plant operator has little chance of becoming a recognized chemist. He learns all he needs to know in a few weeks at most, and thereafter his learning ceases, except for occasional incidental changes in his plant. The same condition applies to many of the semi-skilled operations in industry. Men don't learn how to be general, all-around machinists, but how to manage a particular machine for a particular company.

Fortunately, the school is supplying a good portion of apprenticeship training which was formerly handled by the industry. In the better types of vocational high schools, boys and girls are learning the basic principles of machine operation and a knowledge of the raw materials and products of their community.

Some of the partitioning and narrowing of occupations is thoroughly justified. In accounting fields, for example, there are some jobs which may be filled by men of inferior ability. Simple posting and bookkeeping may be so conducted. Enterprising youths who fill such jobs can always take evening courses for further training, but many will reach their ceilings of ability in the easier positions. In one survey of young accountants, the majority were found to be very weak in mathematics, and could not master a reasonable amount of statistics. Apparently, many had gone into accounting to appease their pride. Here was a field in which they could be fairly competent, whereas formerly the manipulation of numbers had been the bane of their existence.

Law represents an even broader range of job clusters. At the top, we find extremely well educated and versatile men; at the bottom, there is room for many people with lower-than-average ability. The collection of bad debts, or the handling of small damage cases for a large company may be accomplished in a routine fashion with very little chance for intelligent, ingenious judgment. At least, men of this calibre are not expected to effect important decisions involving large transactions.

Whether it is a healthy trend or not, there appears to be a steady decrease in the demand for all levels of skilled and unskilled manual labor. According to various investigations, the percentage of technological unemployment is estimated at from three to five per cent per year (see Jerome's "Mechanization of

Industry"). That is, where one hundred semi-skilled workers were used one year, around ninety-six would be sufficient to finish the same quantity of work the next year. Over a period of ten years this reduction in the need of laborers is really significant.

The dismal aspect of this trend is that many men and women are doomed for unemployment in periods of depression, and all the levels of skilled labor seem to be about equally affected. The clerical fields have not yet felt the full impact of technology, but many are predicting that office machinery, better organization, and improved techniques in office work also may lead to a contraction in the job market along this line.

The optimistic side of the picture is that more and more of the jobs, the blind allies which call for heavy lifting or drudgery, are being eliminated, whereas occupations requiring education, thought, and variability are proportionately expanding. Fortunately, in conjunction with this fact, the number of people graduating from high school and from college has been on the sharp increase, doubling about every seven years. The more that emphasis is placed on professionalizing work, on administration and promotion, through sales or written publicity, the greater the need for educated men and women.

So far, the writer has tried to give evidence for the basic premise that jobs are capable of great flexibility. They can be stretched like rubber to fit particular individuals, and in response to opportunities for expansion. Two important implications arise, particularly with respect to professions.

Firstly, there are no definite limits as to what occupations may be called professions. Any reasonably complicated activity can be enlarged and glorified by increasing the amount of preliminary or supporting education, by raising or developing

a status, and by gaining a reputation for community service. The United States Census reported that less than five per cent of the population a few decades ago were professionals. The present percentage of seven or more in the professional group is not a growth based on the expansion of particular fields, but can be attributed to the incorporation within the professions of many new fields of work. The social worker, the certified public accountant, the research scientist, the nurse, and the high-grade civil-service worker were not formerly referred to as holding a professional status, but by common consent they are now so regarded since they qualify under all the criteria we have named.

Another implication from the concept of occupational flexibility is that a man should never feel secure in the name given his occupation. Many who feel that they are in professions allow their jobs to degenerate until finally their security and status is lost. Some men rest under the false security of general education, others under wealth or the family name. Walter M. Kotschnig, in his discussion of "Unemployment in the Learned Professions," speaks of the large numbers of European youth who had been given a college or university training on the assumption that they would be able to live a life of comparative ease. In Germany alone, before the rise of Hitler, there were over fifty thousand of such restless and dissatisfied folk unwilling to stoop to the ordinary jobs of industry or business, and otherwise unemployed. This may have been an important cause of Hitler's later success.

Fortunately, the American colleges guarantee no such professional status to any one of its graduates. Over half of the college graduates go into business fields, and their followers will continue to be non-professionals. But in reiteration, it is not so much the name of the occupation a man has as the intelligence he applies and his ideals of service which will ulti-

mately determine his professional standing. Any assumption to the contrary is dangerous—any notion that mere education or wealth, or a bandwagon association will promote a job to the level of a standard profession.

Idleness to any group at any time is dangerous not merely for society, it demoralizes the individual. In one midwestern university during the depression of the 1930's, engineering graduates were finding difficulty in job placement. All but a few high-grade industrial jobs had been closed, or were only occasionally active, holding little chance for security. In the general atmosphere of despondency, one faculty member arose to combat the infectious gloom. He located all the mediocre jobs that were available, including minor municipal or office openings. He called in many of the discouraged students in groups or singly and persuaded them to try anything that was available. "Hold on to anything you can get," "Even if you have to mow lawns you can do a better job than others because you are good men just temporarily out of luck." These were some of the slogans which he employed for encouragement, and they were effectual. The graduates of that school became imbued with perseverance, their attitude brought them to the height of occupational maturity. They inoculated new life into otherwise routine jobs, and, when industry picked up, they were ready to slip into superior engineering jobs with far greater facility than the neighboring engineers from a competitive institution.

Each man has his own level of occupational aspiration. Some of us insist on being big frogs, even though we must stay in a small pond to do so. A college student couldn't stand getting C or average grades in class work so he changed to courses which were easier for him, and he was satisfied in stepping down the ladder of occupational opportunity because he had to be "tops" in his field. Another student, with an entirely different

temperament, will lament because his subjects are too easy and always chooses the most difficult course on the schedule even if it means lowering his average from very superior grades to the normal range.

Here we find represented two kinds of up-grading. The first stands for perfectionism at all cost; excelling in competition with others is of more supreme importance to some people than learning or growing in stature. The second kind of up-grading is in the direction of advancing along a rock-strewn, uphill path, competing closely with others in more complex and challenging occupations. The solution for most of us should lie in compromise.

Try to reach a superior level of occupational advancement, but one which is well within your intellectual and personality qualifications, and try hard to excel on that level.

The man or woman who can make a better mouse-trap, or build a better house, or serve mankind better than elsewhere in medicine or social work will be raising the occupational quotient of his job so much that an entirely new job will have developed. Like the alchemists' dream of old, an old job which is well done and up-graded by one or more devices becomes transmuted into something entirely different.

The elevation of any occupation may result from one or more of the following devices. (1) An over-all analysis of the job from various angles, leading to conscious improvement in its attractiveness and community value as well as efficiency. (2) Reorienting the job, or changing and enlarging its function. (3) General or specialized education for up-grading. (4) Re-making a job through "drive" and other personality or character traits. (5) Preparing to fill some of the open jobs on top. Each of these methods will be discussed in subsequent chapters. Each should add interest to any work that is performed or might make the work more worthwhile to the worker and

the entire group. Finally, there is some evidence that new jobs have been and can be created through varieties of up-grading.

In summary it is the intent of this book to point out some of the new horizons for almost any occupation, how that occupation can be stretched or expanded into a field of work that is interesting and socially valued. Instead of a meager five or six per cent of professional workers—an old figure, often quoted—this proportion of professionals may well be boosted to twenty or perhaps thirty per cent. Men or women who up-graded their jobs, progressively developing new angles, new skills or attitudes, are rarely out of work. They become the substantial background of a strong society.

IN the introductory chapter, the view was expressed that occupations are really clusters of activities capable of great variation. Often, it is merely convenience which prompts us to use the same name for the work of two different men. In order to see more clearly how a job cluster may be modified, a break-down of several aspects of any type of work will be presented. Sometimes, an apparent improvement in one phase of a job turns out to be unfortunate; at other times a favorable re-organization of activities for one man will not fit the temperament of another. But all of us may benefit by dissecting our jobs to lay them open for inspection.

One outstanding research scientist, in a large university (a man whose contributions extended into more than one field of science, and who had consulted successfully in several industries) concluded that for many of the most practical improvements in life one should see what other people are doing,

then reverse the order of certain features of the work done. For example, suppose the average architect places primary emphasis on beauty, and after that attends mainly to cheapness of construction. He draws plans and collects data to satisfy these aims, but largely neglects the importance of convenience within the house and freedom from noise. An architect might deplore this example and become famous by giving primary emphasis to the utility of the building, completely altering conventional forms. He might become convinced that people can adapt themselves to new types of beauty.

Some very old and highly standardized jobs might be greatly altered if workers have an experimental urge and are permitted free reign in their experimenting. A man can only vitalize something in which he himself made changes. When we talk of experiment, however, we implicitly speak of the variables which are the raw materials for experimentation. What, then, are the variables which enter into nearly every job?

Space Factors

Considerations of space are very important for some men and they, of course, differ from one job to another. Is the work outside or inside? Is freedom of movement allowed? The choice of a career as an outside engineer as compared to a preference for an office job in a bank may be based on a fundamental personal need for exercise and postural freedom in the first place, or for warmth and relief from movement in the second.

Even two jobs of the same name will vary considerably with respect to this one factor. A very successful salesman felt cramped if he stayed in any one city for any length of time. He had to rove about and was satisfied only when he was made a state sales manager for a large national company. He wanted unlimited territory for his market-place, as he put

it. Many workers in important executive positions would do well to move about more, to avoid becoming complacently settled in one environment. Insurance men, including-salesmen and adjusters, office managers, purchasers, employment experts, and others are often prone to get tied down to a desk. They make phone calls and write letters when it would be to their advantage to talk to men at work or in their homes. The friendly chat, a mutually-beneficial discussion, and co-operativeness are all techniques which aid in the performance of many jobs.

The greatest difference in the interest structure of the young and the old is in this field of space or room for movement. E. K. Strong has shown that most of the interests of adolescents imply outdoor life, or at least "getting around," whereas older men, forty and above, shift towards reading and other indoor occupations, preferably sedentary vocations. Each one of us has his own most satisfactory system of work, and each one has some kind of an index of how much activity he can accomplish at any one time. This limitation is partly attributable to our physiological make-up and partly based on our previous work habits. A man who has done much rugged, out-door work is always likely to feel cramped at a desk job, or, at least, it will take him years to get readjusted. Young men are often disappointed because they find their jobs too confining. Many returned veterans, unless a disability requires that they work only in warm, dry rooms, will insist on outside work and movement. If these young men are trained as engineers and labor all day in a cramped position over a drafting board, or choose accounting and find themselves riveted to a desk over columns of very monotonous numbers, they are practically occupational misfits, or at least need to be reminded frequently that future success requires a preliminary, subordinate job at a fixed position.

Most of us prefer a moderate amount of large muscle activity. We are in better health because of it; hence, if our jobs are largely sedentary, we can compensate best by exercise or by recreative play apart from our work. Though an office worker is bottled up in a few square feet of office for eight hours a day, he can get all the exercise he needs from a few nights of bowling or badminton, or perhaps a couple of rounds of golf per week.

Time as a Variable

Whether the factor of time is variable or constant is largely dependent on precedent. If the rule for a particular occupation is to work ten or twelve hours a day (e.g. in the many small general stores throughout the country which are owned and operated by one family), everyone takes it for granted and will not try to vary the period greatly. From this same postulate—the importance of precedent—if a standard work-day for an office is recognized as seven hours, from nine to five with an hour for lunch, an extra half hour of work becomes an almost intolerable burden. Very few occupations which are highly standardized as to time actually drain a large part of our energy, however, and doctors, lawyers, and some salesmen who are at their jobs “around the clock” without regard to quitting time may hold up very well, year after year on ten or twelve-hour work-days. The interest and variability of such jobs may reduce the need for rest or outside relaxation.

The number of studies concerning rest periods and shortened or lengthened work intervals is almost unlimited, but there is not complete agreement in them. The greatest difficulty has been that it is impossible to keep other things constant while one is experimenting with time. Nevertheless most people work harder when a rest period is approaching, and the best type of rest depends on the nature of the work and the worker's attitude.

During the war, the work shift was a big problem. Men will work an hour longer, with less pay and without grumbling, if they can work during the daytime, as compared with night work, especially the midnight to eight A.M. "swing shift." This distinction between the two work periods is partly attributable to the difficulty of sleeping during the daylight hours, and partly because the night shift was upsetting to the traditional habits of recreation and contact with society. Undoubtedly, enough people working together could learn to adjust to almost any work shift.

For certain kinds of work, there is considerable danger in working for too many consecutive hours. An editor of a trade magazine wore himself down to the point of a nervous breakdown by bringing home two or three hours of work from the office each night. He became irritable under the pressure of over-work and could no longer think clearly about his editorial writing. Advised by his doctor to stop all his evening work, he quickly recuperated from his apparent neurasthenic condition, and once more attained his former facility for concentration.

One does not have to be too long on a college campus to realize that those professors who, ostensibly, have the longest hours each day are not necessarily the best ones. Social contact, whether in selling, teaching, or public administration, requires keenness and alertness of mind which many men, in their eagerness to succeed, ignore. The college professor who puts long, conscientious hours each day on correcting his papers and on other tasks which require close attention, often loses his spontaneity and sense of humor—a loss which is readily detected by his students. Generally, one should shorten his hours of work as he gets older and his work becomes more important, requiring keener judgment for the welfare of more people, and as he must deal with trying human situations where rebuffs and emotional explosions are imminent.

More important than the actual number of hours one works may be the question of whether he spends his evenings in relaxation or in interested activity followed by normal sleep, or is inclined to dissipate in tension-building behaviour (such as gambling and drinking) which may interfere with sleep. Said one industrial employer of college men: "I notice that the greatest determinant of the success of our young employees is their use of leisure time. Do they build themselves up through reading and relaxed recreation, or do they tear themselves down through over-indulgence and dissipation?"

Most men of fifty and over cannot work as long hours as younger men. They develop tenseness and occupational cramp. They need the evening for rest and changes in thinking, otherwise they carry anxieties and ordinary personality problems into the next day's work and are not as able to think them through clearly.

The Variable of Energy

Many of us assume that, for a given occupation, successful accomplishment consumes a given amount of strength and energy. This is true only in the simplest and most stereotyped fields of work, for in all other fields we may expend energy profitably or with great waste. Just as one housewife scorns the idea of having a maid's help in caring for her large house and family while a childless wife wears herself out completely, so may we find some professional people in all occupations who are full of zest while others are exhausted. In fact, obvious "busyness" and worried exertion is likely to indicate inefficiency.

We all differ radically in the way in which we expend energy. Variations in body metabolism are based partly on hereditary factors, but neither work speed nor accuracy has been found to be a characteristic general trait for specific individuals. That is, apparent efficiency in one activity does not

necessarily imply similar efficiency in another area. Clark Hull once showed a very low correlation between the speed of buttoning and that of unbuttoning. A man may be very alert on the athletic field and sleepily stupid in the classroom. Our habits of efficiency are largely specific to particular situations. No one is naturally efficient in all respects.

A great deal of scattered, dissipated energy characterizes many professionalized workers because of poor planning, dilettante impulses, and poor memories. Some of us plan an activity for Monday and when Monday rolls around we have forgotten what was planned. The obvious scheme for overcoming this difficulty is for one to keep a careful record of his daily and weekly program to which he can refer.

A professional worker or administrator who is having difficulty achieving a fixed routine could raise his efficiency greatly by arranging his activities in the most logical order. Most men work better for the first two or three hours of the day when body tonus is high, but the majority spend the first hours of each day doing quite routine things. They answer commonplace mail, make inspections, or settle down to regular chores, rather than keeping this time free for unusual activities, for research, planning, editing or writing documents, etc. Some parts of every job can be done when one is tired without any corresponding drop in the results, but creative effort demands a clear and alert brain.

Many educators and ministers of note have deliberately stayed away from college buildings and offices for two or three hours each morning in order to dig into difficult new material or to write original contributions. These men may get up at six o'clock in the morning so they can carry out this activity and still not be late to work. The following is a sample schedule of activities often undertaken by professional men. The

order is from those activities requiring the most mental energy and clear insight to less demanding activities.

- (1) Writing original material.
- (2) Planning research, or a new course affecting many people.
- (3) Studying new and difficult material for accurate appraisal.
- (4) Calling on associates or customers to get their support or arouse their interest.
- (5) Teaching or explaining something you've been over frequently.
- (6) Writing or dictating routine letters.
- (7) Inspecting the work of others.

A common fault of many of us is to exert ourselves needlessly by impelling those around us to accept our views. Teachers are often guilty of haranguing their students into slavish submission, salesmen of trying to talk their customers down so that they won't have any arguments in return, managers of abrupt gestures or orders of finality, if not actual shouts of dominance. Preachers easily build up an autocratic temper. Many of these tendencies are compensatory, however. We feel that we are not influencing people enough, and fall into the practice of forcing people by sheer might and in desperation, often defeating our own purpose. Students pay less attention to a professor who shouts at them than to a sincere but moderate speaker.

In very few professional occupations is the factor of strength important. The small man or woman is as effective as the large and husky. Nevertheless, the conservation of one's strength and energy is important, and this too is unrelated to pure size or musculature. The energy to think clearly at the end of the day, occasionally to work extra periods during the week, to hold oneself together when assailed by competitors, this kind of energy and fortitude is really important. It is related to the

ability to relax completely at frequent intervals, or to maintain an even-tempered interest in one's work. Good, steady work-habits can be learned and are highly economical in the long run.

Physical hygiene is an important factor which must not be overlooked. For many years, a man may be careless about his eating, drinking, and smoking habits, or other types of indulgence. He may actually support the common fallacy that smoking relaxes him, that drinking a few cocktails will have no effect on his efficiency, or that he can over-eat with impunity. One of the best tests of hygienic stamina is the quality of one's sleep and how fresh and vigorous it leaves him in the morning. Another test is freedom from digestive upset. If a man cannot digest a normal meal without gastronomic disturbance his health is not up to par. A physician's help is sometimes necessary, but often an honest analysis of one's life habits will be sufficient to overcome the trouble.

In his book "The Psychology of Efficiency," Arthur G. Bills advises each person to study his own work rhythms and attention waves as they alone are likely to be characteristic of him rather than a particular job. Some of us cannot stand repetition of movement for very long without getting hopelessly tied up by inhibiting "blocks." Others do not seem to be bothered, but even seem to prefer work with little or no variation and no inferences can be drawn about the respective intelligence of the two types. In one large research office where there was a great deal of opportunity for choosing your own job, those jobs which were the most routine and seemingly monotonous were the most frequently chosen. The uncertain activities—those involving co-operation between people, where there was risk of failure—were avoided. A few people deliberately avoided the routine work, however, greatly preferring an element of risk and uncertainty in their tasks.

The tendency to duplicate the same routine many times has been labeled **perseveration** by psychologists. A certain amount of this is highly desirable if not inevitable. We enjoy singing old tunes over and over again as well as we appreciate uniform work conditions from day to day. Many of us, however, settle down too completely and irrevocably. We lose all desire to improve our technique of work. According to Bills, there is nothing inevitable about the shape of the work curve of a given person; it can be changed to suit a particular job. Hence, we can settle into one pattern or another. Clock-like regularity has one advantage in conserving energy. We don't waste time worrying about the method or the result, and it fits the cautious type of person very well. Lack of uniformity, which is more or less the fate of the executive, the experimenter, and many professional people, has the advantage of change and intellectual excitement.

In summary, there are several rules which aid the members of any advanced occupation in the conservation of energy. Everybody can benefit by one rule or another, and some can afford to consider all three:

- (1) Try to systematize the usual activities so that they fall into an orderly scheme.
- (2) Spend some early morning energy on planning and experimenting, particularly in the unusual phases of your work.
- (3) The executive or professional man will often benefit by deliberately altering his program of duties in order to experiment with his zest and energy.
- (4) Make an honest appraisal of your habits of smoking, drinking, and eating, controlling them to render them harmless.

Opportunity for Growth

One of occupations' most pronounced variables is the pos-

sibility offered for growth and advancement in a job. By growth, the actual development of the individual's capacities and personality is meant, while advancement refers to his chance for promotion or raise in social status. Although these qualities seem to be closely related, some occupations offer one opportunity and some the other. All the professionalized fields of work should present both opportunities, for a job that is static makes much greater financial demands on the employer who is forced to make the job superficially attractive. When a man feels that he is gaining a great deal of new experience, when he is in fact an apprentice, he is not so concerned about titles and monetary advancement. Research assistants may work under the same scientists for years without an increase in pay because they feel they are constantly growing. Conversely, many so-called apprenticeship experiences in industry have very little training value, and boys want increases in pay every six months at least, or they will indignantly quit.

Advancement is in part a matter of one's own personal feelings, although it also depends largely on the attitude of one's supervisors. A few years ago, the supervisors of students who were earning federal money on National Youth Administration projects were asked to indicate the exact nature of each of their employees' work, and also whether they felt each student was learning something of value from the work. It was interesting to note the difference between the remarks of two supervisors concerning almost identical work. One supervisor thought that grading papers was purely routine and had no training value, while another thought it was quite valuable experience. One administrator thought that the supervision of other students in a game room or in a janitorial job was valueless. Another felt that it brought confidence and managerial experience to the employed student, which was of great value in his character and personality development.

Surveys have often tried to evaluate the morale of the workers in a plant or an office by having them indicate how well they liked their work on a scale of five or ten points. For example, on one extreme of the point scale will appear the statement "I am thoroughly satisfied with my work," on the other side, "I hate everything about the job." When asked to indicate why they liked their work or to suggest constructive changes, the reason: "chance to do interesting and significant work," is far more frequently mentioned than the factors of salary, "chance of freedom to initiate new things," "steadiness," or "fair treatment by superiors." "Opportunity for promotion" came second on the list, close to the importance of interesting work.

One of the most devastating blights that can feed on the mind of a college graduate is the general attitude that he is trained and has nothing more to learn. This attitude is conspicuously present in many business men, engineers, and lawyers. They can do the kind of work which allows them to settle down, and they reach the point where society awards them a favorable status. Further education is not required for their particular task, so they cease striving for any kind of development, much less purely academic. Several states and cities are now requiring advancement of teachers or civil service workers through courses of study and/or special examinations, largely with the intention of stimulating the growth of the workers.

There are various reasons why growth is less common in some fields than others. Sometimes there are no obvious courses of study, and more often such study is not at all expected, except through chance occurrences. Occasionally, college students are told when they start work: "Forget all your academic learning. All you have to do is learn how we do it here!" They are literally discouraged from expansion, because their em-

ployer has the mistaken idea that additional training is unnecessary or confusing. He has a misconception of the term growth.

But, for the energetic office employee who has foresight, there are some definite ways to promote growth or advancement, and no discouraging employer can refute them:

- (1) Reading up on a special problem or topic from the day's work.
- (2) Discussing methods of solving new problems with others.
- (3) Making surveys and experiments — e.g. writing two kinds of letters and comparing the responses.
- (4) Keeping up to date on technical journals.
- (5) Finding out what your neighbors are doing at work, and why.
- (6) Giving yourself a thorough review on a new field (e.g. lawyers on labor problems).
- (7) Making unusually careful analysis of a recurrent problem which you feel has been unsatisfactorily solved.
- (8) Asking your superiors for suggestions to increase your growth.

Some fields seem to require a categorical hierarchy of occupations which differ both in title and in salary. Often this is a matter of tradition, as in college teaching, whereas high school teaching has no such hierarchy of titles. On any non-sectarian university or college campus, we find assistant instructor, instructor, assistant professor, associate professor, professor, and department head or chairman, and these titles as well as the accompanying salary are quite rigidly defined. Business promotions are usually financial in essence, but hierarchies are also present there. Psychologists have shown that even small differences in pay scale and social status can produce excellent working morale. However, the special advantage of

the enormous salary of a corporation president has never been proved.

Amount of Individual Responsibility

Recently, a college student was brought to a dean's office by his mother after the college had inquired about his failure to attend classes. He had paid his tuition, but apparently had dropped out of all his classes. The boy had done well in a military school, and he had shown a very good score in aptitude tests upon his introduction to college training. Since cuts from class were not regularly recorded, he found that he could leave his home and get along for weeks without his family being aware that anything was wrong. When he was finally suspected of irregularity by his parents he admitted staying away from every class for an entire month, but insisted that he had grown tired of his delinquency and intended to return to school. This was easier said than done as two of his five professors would not let him return. From this unhappy story, the boy learned, rather abruptly, that freedom of action must be accompanied by self-discipline.

Responsibility means a social trust to carry on in any field of work without the need of close supervision. In a large industry, the personnel officer was interested in giving tests designed to determine interest and emotional adjustment. He was surprised to find that the most essential characteristic of a first class administrator was the willingness, even the desire, to take on responsibility even at the expense of personal liberty.

Whether an occupation is on the professional or business level, the sense of responsibility as a social obligation is a great motivating force. Selling insurance, for example, was a discouraging, selfish procedure to one man who struggled for two years to meet people when they didn't want to see him. Every day's work was a torturous grind until he suddenly became con-

vinced that in nearly all cases he was of greater service to people than they were prone to realize, he was benefiting them by emphasizing the importance of family security. Not only had he seen clearly the monetary advantages some families had earned, he had seen the effect of a policy on many young men who subsequently became more sincerely devoted to their families and took pride in their own worth. This conception completely altered his attitude and he vowed never to leave the important field of insurance.

Similarly, a social worker, an accountant, or an advertising man can take on enough social responsibility to up-grade their jobs considerably. If an office boy says "I will take care of this! You can count on me!", he raises the level of the tasks he performs and makes them an integral part of the larger program. A chemical company will have some graduate chemists who are entrusted to work by themselves for long periods of time. They are trusted, independent, responsible agents, while other chemists must be supervised and their work time accounted for. When a supervised man can graduate into the category of trusted experimentalist, he has advanced greatly in his own esteem as well as in the eyes of his company.

Loyalty and co-operativeness are some of the initial and most important ramifications of responsibility. Modern industry has many men in important administrative positions who must get along with each other as well as serve the interest of the particular firm, without regard to age or status. A good worker must discipline himself to avoid the destructive emotions of envy, jealousy and sullenness in his dealings with others. A man who keeps important information from an associate who could well benefit by it is not a responsible member of the organization. Similarly, an individual who absorbs a new duty by group consent and fails even to try to succeed is forsaking a trust.

Sometimes written commitments are surprisingly effective for a person who has constant fear of neglecting his responsibilities — statements, even in a personal diary, of just what work he should do, in what ways he can increase his co-operativeness, and to what principles he should be loyal. Daniel Starch in "How to Develop Your Executive Ability" advises every young man to seek out chances to show responsible action—in committees, clubs, or writing reports. One must assume leadership, he insists.

Planning and Vision

In nearly every field, at least temporarily, a person can carry on aptly without planning his future, but he is degrading his job if he fails to wonder about possible developments and reorganizations in the work he or his colleagues are doing. In many modern colleges, the co-operative program of study requires that a student work for a month or longer in a store or factory while an alternate studies, after which the two change places. In addition to the theory of academic or institutional learning, this plan does provide practical, occupational experience as well as aid the student in working his way through college.

Many of these students are naturally put on menial or very routine jobs, but those in charge of the program have argued that it does no harm to be a janitor or to run a punch-press for a month or so, even if the job requires no learning and seems to back-track from any type of intellectual expansion. During the work period they may watch the work of other people around them and be thinking of the possibility of altering aspects of the industry which surrounds them. At the completion of their work, they may be asked to fancy themselves in supervisory capacity and told to write a paper from the supervisor's point of view concerning their job. Even janitors and messengers have made suggestions useful enough to stim-

ulate definite changes in the work program of these two occupations. The students cannot help but appear as small cogs in a complicated machine of occupations, but at least they are conscious cogs looking at the whole mechanism.

A large bakery hired a college graduate during the depression when there was nothing for him to do except sell baked goods from a horse-drawn wagon. He accepted the opportunity and immediately began studying closely the wants of housewives and the business of building up a continual flow of sales. Within two years, this man had been so successful on his route that he was made sales-manager of a district, and within five years more he became a national figure as one of the chief executives of the firm.

In a great many large and very impersonal factories, stories are circulated about changes in work, suggested by men in small, narrowly-specialized jobs, which led to great improvements in the efficiency of work done or in the attitude of workmen. The man who can plan changes while working at a routine job is a potential administrator.

Occupational success depends often on imagination, especially in the areas of advertising and sales-development. If a person cannot see his job as a dynamic, changing thing he is sooner or later going to find himself unemployed. Lawyers, executives in competitive companies, research scientists, and municipal planners, all need to reserve a fair amount of time for planning. Often, however, merely providing for enough time is not the only solution. In many cases men have to get away from people or even their work in order to invent new procedure. The great mathematician, H. Poincare, insisted on interrupting the monotony of his work as frequently as possible, and refused to accept work with any great regularity.

Many of us conceive of research and imagination as very unusual and confined to a select few occupations. Actually, everyone in a professional field where changes in practice are constantly taking place, and where the attitudes and needs of people are variable, should be ready for experiment and variation.

Closely related to the development of vision is theory. Many of us aim at skills and at practical accomplishments, but neglect to look behind the scenes into the "why" of current practices. Some say theory is "academic," while others say that it is confusing in that it suggests unproved ideas along with known facts. Or, theory is charged with interfering with the traditional, almost sacred, practices of the past. And what is the result of this iconoclasm? Scientists who have indulged in years of pure science, without any expectation of practical value in their research, have been accused of futile, misguided effort. Physicists who analyze the cosmic ray, biologists who are concerned with breeding habits of simple organisms, and psychologists who make rats run mazes are thought of as lost in the labyrinths of epistemology.

Actually, out of the total explorations of this sort have come great advances in science. The cosmic ray has brought an enlarged understanding of X-ray phenomena. The analysis of the sex life of one-celled organisms has given us insight into the devastation wrought by parasites. The observation of rats in mazes has led to laws of learning which were the fore-runners of similar laws for humans and human learning. And, although people fear the ruthlessness of theoreticians who shatter traditional beliefs, Kotschnig's analysis of the German mind in "Slaves Do Not Need Leaders" shows that the Germans had the finest technicians of the world, men of action and practical understanding, but they also had many technicians who were sadly lacking in broad, theoretical training. They had the power

that their technical skill had earned for them, but they did not have the proper knowledge to use their influence wisely.

Theory is necessarily critical and multi-phasic. It dares to reach back into ideas that were previously discarded, and forward to new conceptions. Bellamy's "Looking Backwards" though repudiated in the main by most economists, has also been recorded by many thinkers as one of the most stimulating books of the last hundred years.

Professionals and others, therefore, expand their occupations when they reach into pure theory, and they try to understand honestly the hypotheses and unfamiliar descriptions in the latest text books or journal articles. Theoretical thinking is generally broad thinking, and it leads to imagination and new kinds of planning.

Administering Details

Although there is a great deal of variation from occupation to occupation regarding the amount of detail a man is expected to remember, one's success in the professional fields and in the management of other people is often determined by his capacity to keep in mind many individual incidents and facts. To treat a man correctly in a dentist chair or in a bank, it helps to be acquainted with his background, his interests and his inclinations. To manage a troublesome clerk or settle a dispute with a union he will require accurate recollection of previous experiences. To prepare for a campaign of advertising, many different small items must be surveyed and arranged in advance.

Although some occupations require the handling of innumerable details, some men seem to enjoy meticulous work. They may not be unusual in their capacity to idealize or plan broadly for the future, but they are capable of handling many routine and variable things without mismanaging them. In one office, a man of very mediocre intelligence was excellent in his ability to keep things running smoothly, as well as keep-

ing all the office equipment and purchase up to required specifications. He had reached his ceiling of aptitude development and he was happy, whereas some of the salesmen who worked from his office were capable of superior thinking and consequently had superior earning power.

Good accountants must not feel too far above working with a great deal of detail. One clear-cut study showed that six out of seven managers of small community stores on the edge of a city fail because of poor accounting techniques and the inability of the owners to keep track of many little expenditures, and also of the wants of customers. Similarly, doctors and lawyers who spend some time on learning the names of their clients and associating with their prejudices will have a big jump on the more aloof or theoretically-minded types of practitioners. Some capacity for managing details is necessary in all advanced positions, but such worth-while crutches as the memo-pad help to alleviate the pressure on a man with a poor memory.

Remembering details is actually a very small process in the functioning of administration. The co-ordination and systematization of those details is of equal importance. The notorious system of Army "red tape" is a symbol of wasted time as well as unintelligent co-ordination, and civilian hospitals, large industries, and business offices give evidence that this red tape is not too exclusively associated with military administration.

Many administrators think that they can cope with the routine and detailed parts of their work merely by adding more secretaries to the payroll and actually establishing a hierarchy of secretaries. This very often does little to increase the efficiency of the office. The top secretary becomes mainly a receptionist who gossips with those who come to "see the boss" and who arranges for his later appointments. The second in

line takes memoranda and letters from the chief and from the first secretary, while the third is necessary to conduct any filing that seems desirable, etc., etc. In one New York office, under the searching eye of an efficiency expert during the depression, it was found possible to eliminate two-thirds of the secretarial force. The greatest difficulty in a case like this is that the secretarial hierarchy, like any other hierarchy, becomes an institution with perpetuating, vested rights, and no one wants to molest it.

Management of Others

Another one of the important variables in occupations is the amount of responsibility men have in supervising or directing the work of other people. The number of people employed as proprietors or managers of business, shops, and large farms, would include at least ten per cent of the male population. In such supervisory activity, a reasonable amount of time must be spent in directing the quality and quantity of work carried on by others. As stores become bigger, and as small shops fuse into larger industrial organizations, there is quite evidently a greater need for good supervisors, and more attention will be given to this function of work.

A very able young engineer was appointed assistant chief engineer for a large western railroad because he had been brilliantly successful in planning certain changes in construction. He was put in charge of twenty-five men, some of whom were engineers, others who were section foremen and surveyors. But, at the end of several months of hard work, he admitted to his more intimate friends that he had done most of the real work himself. He couldn't bring himself to trust others, but he would go out in the evening, after the factory had officially closed, to check on simple measurements that were made by his men during the day. He didn't know how to cope with many of his men, who loafed considerably or worked carelessly,

and he didn't know whether to issue direct commands or suggest things indirectly. In view of the experience of many other engineers and business men, he had to admit that he was a poor manager. He had paid too little attention to people, and too much to materials.

Managing other people is not a simple function, nor is it constant from one type of work to another. A successful military leader, for example, may not be a good office manager, and good shop foremen or politicians often make poor military commanders. This is because good management of others presumes several functions of personnel control, which are more completely discussed in a later section. Good management should, however, include two or more of the following responsibilities:

- (1) Teaching those who are careless and inexperienced the right methods.
- (2) Inspiring them and encouraging them to do their best.
- (3) Directing and holding to a plan of action.
- (4) Holding others responsible for their part in the plan.

The young engineer, whose ill fate was exemplified above, was inexperienced in teaching and insecure in inspiring others. He could plan well, but he quaked at the thought of having to hold others to their tasks. Through his own analysis and practice, he gradually improved and eventually became a leading executive in the railroad.

In most colleges, it is easy to find the type of person who manages a large elementary class very well because he can make simple concepts clear and interesting, but is very weak and unsure in more advanced and smaller classes. Conversely, there are many very good tutors or seminar leaders who make inadequate large-class teachers. Another comparison can be drawn between the research scientist who succeeds brilliantly in a small laboratory with two or three assistants, and his col-

league who is second-rate in the laboratory but greatly overshadows his fellow scientist as an important departmental director in industry. These examples serve to illustrate that the management of others is a talent of personality which has a positive importance, and which should not be overlooked. The fastest and most competent worker on an automobile assembly line is not necessarily the most likely first-rate foreman.

By way of a chapter summary: there are at least five levels and types of jobs which may be catalogued to indicate the relative importance of the different variables noted above. Percentages are given approximately, according to census and similar data.

- (1) Simple operative jobs (including semi-skilled, factory, and simple office work); 35 to 40 per cent of the total working population is concerned, and the trend is probably toward a numerical decrease. Factors usually considered: Regularity of **space, time, and energy.**
- (2) Skilled activities, whether in machine trades or in an office. Between 20 and 25 per cent of the total working population is concerned, and this is an almost stable amount with probably some decrease in the future. Factors often considered: considerable standardization of **space, time and opportunities for growth; some planning and responsibility.** (Depending on the skill, there are increased opportunities to develop new services of advantage to society.)
- (3) Selling and directly influencing others; 10 to 12 per cent of the total working population, and this is a fairly stable trend. Factors of importance: **energy, responsibility, planning, some management of others.** (Salesmen often develop into executives since they represent management and suggest changes in the products.)

- (4) Professional and semi-professional, implying general and special education beyond the high school level, and including specialists in business. Between 10 and 15 per cent of the total working population are involved, which percentage is definitely on the increase. More significant factors: **growth, responsibility, planning, administering details.**
- (5) Executives and administrators (including all supervisors and executive professionals); from 10 to 12 per cent of the total working population, and definitely on the increase. Most important Factors: **managing others, administration of details, planning, favorable management of one's time and energy in taking care of responsibility for others.**

OCCUPATIONS can get run down at the heels. We take them for granted, and let them deteriorate through lack of perspective, or because of our unsteady interest. A job may be held on to from day to day with very little effort, and we repeat the same behavior mechanically in the same office or shop.

An automobile insurance salesman wondered, for example, why his job had gone steadily down hill, when others were apparently successful. He could have used some shrewd analysis to discover that, actually, he was spending much less time on the job than were his competitors. He was wasting so much time in self-pity and blaming his bad luck, that he was not keeping up to date in the literature of his subject. Better yet he might have reoriented himself differently toward his job, becoming more aggressively interested in customer contacts. He might have tried to serve all his old purchasers better, keeping in touch with them, and thereby meeting new customers.

There are several ways we can re-evaluate our work, and various devices that help us. Above all we should have in mind

the full service of the work we do, and a bit of its history. Why have people in the past succeeded, and what has been the real social need for our work? The history of all professions, for example, shows the importance of ideals and standards to maintain the social values of the job. Most doctors today repeat and swear to the Hippocratic oath of professional integrity. In the current literature of every professional group, there are continual restatements of the true standards of that group. Sometimes a single work or slogan may operate to make people change their ideas of a job. "The customer is always right," for example, was an insistent point of view to create good will, required by Marshall Field for all his salesmen.

Ideals are continually changing. A few years ago advertisers thought it was smart to trick their public by exaggerations and catch phrases. It was the thing to do. However, today it is more effective to be accurate and fair, and the trend of today's copy writing is against exaggerations. Social sensitivity is almost a rule as an occupation becomes professionalized. Several techniques or suggestions are appropriate in helping people to re-evaluate and up-grade their jobs. Some of these will be applicable in only a few cases; many of them are quite universal. "Just common sense" one might say to many of these methods, but it is the type of common sense which is so often ignored.

1. Take a Fresh View

If we can look at the job as though from a distance, it may appear altered, and new functions emerge. Let us take the man who goes on a long vacation. He may occasionally think over his work; why he is doing it, how it might be better done. Above all, he may recover from some of the fatigue that has depressed his spontaneity, or from a kind of "settlement" or fatalistic view that the job has had to be done always in the same way.

The principle of the sabbatical year in college teaching was

designed to give professors a chance to travel abroad, to carry on research, to write articles, or to visit neighboring institutions. But its greatest advantage has probably been to give each man returning to his profession a fresh idea of good teaching. More up to date in the current discussion on his subject, more interested in stimulating young people, more likely to relate his subject to applications outside the college or to other subjects in the curriculum, he can plunge into his work with a new interest. Similarly, ministers, social administrators, and business executives have been given several months of vacation to help them toward a reorientation of their professions. In the great majority of cases such a vacation has not been the equivalent of a pure rest; it has implied change and review and increased purpose.

The occasional interim job has all the advantages of a sabbatical if it is not exhausting and is quite closely related to some phase of a man's work. A social work administrator was asked to make a survey of the social-service activities of one of the church denominations in the northwestern states. This survey, lasting for four months, was quite physically fatiguing in that he was constantly traveling, and because he was continually thrown into the position of a mediator of squabbles that had arisen between members of the church proper and its social-service organizations. However, when he returned to his work he remarked on the immensely stimulating experience he had had. "It made me completely re-think my own job," he said. "My petty troubles seemed to disappear into thin air."

Occasionally, a man may be given a new duty for a few months which enlivens him through changes in perspective. A friend of mine who is a chemist for a large organization with factories in many cities was asked to go to France two decades ago, partly as a vacation, but mainly for the purpose of studying the rising rayon industry, and the combinations of silk and

manufactured fibers that were developing at that time. Incidentally, the firm paid for the transportation of his wife also. The effect on this man's general attitude toward his work and his general loyalty toward the firm was electric in stimulus. He said, "They have always treated me well, but after this I owe them a lot." Above all, he had been given a chance to review, and to think about, the various multiform activities of a rising industry, and to bring back many suggestions to his American industry.

In many fields, an entirely new slant on a job may arise from assuming the position of a competitor or an associate. When Whiting Williams was asked to take over personnel work for a large industry he decided to spend several months first as a laborer inquiring for a job. The results of this experience were not only an extremely valuable reorientation towards the job of employment, but through the books he wrote, an inspiration for all who were interested in industrial relations throughout the country.

2. Rename the Job

The name of a job is important, because it contains implications about the function of the work that is performed. To change its name may reveal new and quite different functions. Let us take the difference between the terms "undertaker" and "mortician," or, better yet, "funeral director." Nine out of ten people would at first regard them as the same, that they cover the same specific tasks and take the same personality and character traits for effectiveness. But let us see: The primary task of the undertaker was to care for the body of the dead. This is what the term signifies. The funeral arrangements were, in a sense, secondary to embalming and burial. Today, many high grade funeral specialists, or morticians, would regard the actual care of the dead a less important function than the conduct of the funeral and the supervision of arrangements with

the family for the greatest comfort to all in a time of distress and confusion. The terms mortician and funeral director have definitely up-graded the occupation.

In several cities, perhaps the majority, the word "truant officer" is no longer used, but rather some such term as "school-home visitor." Instead of emphasizing the disciplinary and punitive side of dealing with the boy who stays away from school, the renaming of the job assumes that he gives positive attention to getting on with the family, inquiring into difficulties, and seeking co-operation with the family. Instead of accusing, the chief emphasis has changed to helping. In a city of 50,000, this change in title brought a completely altered attitude between school and home. Moreover, the quality of incoming workers was stepped up, since people who would never have been interested in a truant officer position did become interested in the family-school relationship. These were well-trained people who knew a good deal about problems of school failure, recreational deficiencies, and their importance, as well as health, industrial, and criminal problems in different parts of the city. The school-home visitor became a partner with the social worker and teacher in readjusting the family.

A change in the title of an occupation may both narrow and broaden its scope at the same time. Take the city policeman who is promoted to the title of detective. At once he leaves most of the duties of the common police official, such as handling traffic problems or covering a particular "beat" at night. He is assigned to criminal problems only, but he is given much more freedom so far as his time is concerned. He is expected to study into methods of crime detection, he must follow important cases in the newspaper and know about the crime centers of the city. When put on the scent of a new crime, he may have to work twenty-four hours at a stretch.

Oftentimes, a man's title is made very broad, so that he

may expand his energies, bringing in several subordinates or associates to relieve him of duties. Industrial employment men, for example, have in recent years been referred to as personnel men. But broadly conceived, personnel work includes much more than hiring and firing. It has to do with promotions, with industrial relations in the plant, with the use of refinements such as psychological testing and ratings of efficiency, and also with the morale of workers. The question may frequently arise in such cases: Should I hold to the old job with a somewhat broadened title, or might it be better to switch over to a job title which is more specific? **The bigger the man, naturally, the broader the title he should hold.** Assistants can carry specific functions and job titles.

The various effects of title-changing were considered in one large plant in which the president decided to alter the labels of the majority of his minor executives. For example, the head purchaser was called "director of purchases," even though he was told to continue the same work he had been doing. This created some amusement for all who knew the man, but he himself felt that it had some effect on the quality and type of work he did. As head purchaser he attended to many details and kinds of purchasing, but as director he became more interested in the policies of purchasing carried out by his subordinates. The name change altered his function, and that is what the president intended.

Similarly, a service-sales man who had been a "trouble shooter" for new customers to give them initial service when difficulties arose, had the title of "sales adjuster." He felt immediately that he was no longer mainly responsible for servicing the material which had been sold; it was primarily his job to see that customers were well satisfied, and could be easily resold on the same goods. His attention was changed from material goods to people. In order to aid this man in his all

around adjustment problems, he was given an assistant, formerly a general repair mechanic in the plant, now referred to as "trouble shooter," a title regarded by him as a distinct advancement.

There is magic in words, as the study of semantics tells us. But merely to manufacture a word does not necessarily change the job for long. A "spirit" may be a hobgoblin, or a fairy. The context or way we use it is the important thing. Similarly, the occupational juggling with words may be of tremendous importance, or it may become artificial. Call an employment office clerk a personnel expert, and he straightens up a bit. At least, he used to have more self respect, until the term personnel work became cheapened by innumerable applications. Even a desk worker who arranges auto trips to and from the factory has often been called a personnel expert. Similarly, careless over-use of any job title may cheapen it. Many "life underwriters" are just old-fashioned insurance salesmen.

One of the most dramatic changes in occupational flowering has been in connection with real-estate offices. Instead of the older type of office sign, "Houses to rent and sell," one now sees quite frequently "real estate broker" or "realtors." These terms have come to imply general expertness, not merely in sales work, but in home or office management, in appraisals of homes or industrial properties and various kinds of household insurance and credit management. Maintenance and repair of property may include actual contracting and building. A realtor may be quite an authority on business development in a locality and the promise of the future. He should know about school and transportation facilities. He often invests heavily in properties himself during a depression, and he may act co-operatively with banks and insurance offices to "write off" undesirable places through quick reduced selling. But unfortunately, many

"realtors" have adopted the name only, and not the spirit of social service and expertness implied in the term.

The hierarchy of office manager, private secretary, stenographer, and typist, can be juggled by management, often with in-between subtitles, such as head stenographer. This has certain strong advantages, but also may create artificialities. The advantages are not only that the worker's attention is drawn to particular functions for which she is responsible, but also it provides a structure of promotion and a feeling of growth. The disadvantage, as previously suggested, is that one who is superior in the hierarchy may get too superior to do subordinate work. Even during vacations for the typist, the regular stenographer may refuse to carry on with routine typing.

Certain principles of title changing might be suggested in order to avoid artificiality or an undesirable caste system.

(1) If a title can be made more pointed, to emphasize the most important functions of the work, it will be more useful.

(2) The title should receive the assent, if not the enthusiastic welcome, of the workman concerned. He should see some value in it.

(3) It should not interfere with the full legitimate duties expected of the person.

(4) If a title has attained some traditional prestige in other organizations, it should not be easily thrown aside. A new title may arouse amusement or wonder as to the correct value of a man. It should not be a "phoney."

3. Rearrange the Environment

One of the main differences between animals and men, according to traditional teaching, is that animals have to accept their environment without voluntary change on their part, whereas men can change the situation in which they work and play. They do not have to be tied down. Sometimes this may mean, of course, a complete change of position or perhaps

moving to another city — if a person cannot find the type of position he wants. A lawyer, for example, may feel blocked in one city because there are too many lawyers interested in the same type of law in which he wants to practice. He may find exceptional openings in another city. A personnel man may wish to carry out certain ventures in labor-management relationships which the head man in his firm will not countenance. The only recourse is to change to a different firm, if the personnel man can find the right entry.

A few years ago a commission was organized to review the field of pharmacy, with special attention to the training of young men. Many drug stores were surveyed, and questions were asked customers as well as managers. Several suggestions led to one well-agreed-upon rule, that the orderliness and cleanliness of a store is of paramount importance. Similar results have come from surveys of groceries and hardware stores. A person coming into a well-organized store, where related items are placed together, knows just where to go. If he can get hold of things, or look at them closely, it is a great advantage. Even heavy plate glass is a hindrance to sales.

Professional men can often benefit greatly by pleasant waiting rooms and offices. In one large university, the dean asks each of his problem students to be seated in a very comfortable chair, not directly facing the light. The man tends to relax, and feel at home. According to this dean, he can elicit far more valuable data from him, which he would otherwise cover up.

In a surprising number of cases, even a subordinate can alter his environment considerably, if he has the imagination and presents his case clearly to his superior. If a larger travel allowance is sought or additional clerical aid, or improved office furniture, better lighting, more filing space, added opportunities for receiving clients or customers, superior office stationery, more cheerful paint on the walls, reduced space be-

tween himself and an associated office, or a hundred and one other improvements; if these are earnestly desired and can be represented as distinct assets to an organization, they will often be provided. One industrial president reported in a gathering of executives that he didn't want men on his staff who were not always wanting new and different things for their jobs. One subordinate was asked by this executive what he could do to improve his office with furniture or added staff. The answer, after some pause, was: "Perhaps I could use another waste paper basket." Shortly thereafter this man was relieved of his post. Good executives want changes and are often glad to make important enlargements.

Students in high school and college are often handicapped in their home studies because they operate under unfavorable conditions; namely, inadequate desk space, overstuffed chairs, badly arranged lighting facilities, and interference from noise. One or two definite changes along these lines can frequently make all the difference between successful studying and a scholastic failure.

One must also keep in mind the social environment in which he works. Too many people who like random conversation or who are careless about moving about an office may easily disturb efficiency. For this reason, mainly, nearly every study of the effects of fraternities on scholarship has shown deterioration in scholarship in the case of the average student when he moves into a fraternity. Many scientists are far better off in small laboratories of their own than when working out in the open with others. The environmental set-up conducive to good work is under our control to a large extent. Why not be masters rather than slaves of our fate?

4. Watch Someone Else Do It

One of the most dramatic developments in training during the Second World War was the use of movies in show-

ing exactly how a particular job is carried out. Instead of instructional books or lectures of the traditional type, a man is allowed to see some expert carry on the work. In the Navy particularly, many of the standard activities were shown not once alone, but often from five to fifteen times with in-between intervals for practice and comment by instructors. The men who have gone through this experience affirm that they develop a confidence in how to do the thing correctly which they could not get merely through the ordinary "trial-and-error" learning, nor through carefully prepared lessons and studied books. These movie lessons are in part an outgrowth of work done in connection with sports several years ago. If the average golfer could watch often enough, the stance, preparatory set of muscles, swing, follow-through, final relaxed ending of a first-class golfer, he would begin to catch on to correct stance and form.

Imitation has been called the greatest teacher of all. Children imitate the minute gestures of their parents and neighbors. Crime is taught through imitation, as are great ideals of conduct. To the extent that the movement system of an athletic skill can be clearly demonstrated, and immediately practised, then watched again, improvement is quite sure to follow.

The story is told of some young accountants who had been lectured to concerning a new accounting machine which also included tabulating devices for statistical purposes. After a fair amount of oral instruction, they seemed to know the theory, but no one wanted actually to practice on the machine. The director of the group of accountants considered the cost of this instruction as pure waste. One day, however, he encouraged a young expert to come into the offices, not to talk at all, but merely to carry on his usual manipulations, suggesting to several of the novices that they watch him. Within a few hours, these men had become reasonably proficient. The imi-

tator relationship is a more natural, less self-conscious relationship than the listening-student relationship.

5. Read Around the Job

Most top-notch executives are good readers. They have good vocabularies and they know how to cover rapidly the main points in reading material. Johnson O'Connor developed a special vocabulary test for executives because of the close relation he found between the two types of ability. A man must have the power to grasp news or read reports rapidly in a complex business field. Daniel Starch found that high-grade executives were much more likely to have high scholarship ratings—almost always related to good reading ability—than low-grade or average executives.

Hard work may in a sense take the place of reading. One reasonably successful sales manager said: "In view of the fact that I don't have a good education and read very little I have to put in much longer hours than would otherwise be necessary. I don't keep up on the short cuts, and I find phrases in letters sent to me by the head office which I don't understand." The primary difficulty with most engineers who "settle down" on a job is that they lose interest in the broad and abstract phases of their field. Said one man: "I was earning over \$10,000 a year as manager of a good-sized factory, and I thought I was safe. But when the depression finally hit the organization it was bought up by another corporation and I was out of luck. For three years I could not pick up a job paying more than \$1,500, largely because I had allowed myself to get out of date."

Reading has been called the intellectual man's basic skill. If he is a poor reader, he is handicapped in everything he tries to do. Many people have taken for granted that they have learned to read in grammar school, or that no further improvement is possible for them. They give up. Actually many adults improve their speed and comprehension of reading after they

have left school. One college professor doubled his speed in a year's time, and did not diminish his ability to comprehend. There are very careless rapid readers, and also very slow and extremely thorough readers, but these are both exceptions. Good readers are usually rapid—depending on the type of material they are reading—and also they read meaningfully.

To develop speed, it pays to force one's eyes faster even if some of the material is skipped. One should also restrict his gaze to the middle two thirds of a line, as the mental grasp will take care of meanings on the fringes. Occasionally one should jump lines, or read two lines at a time—a habit of most good fast readers when they are covering somewhat familiar material. Remember that the average article repeats the same ideas, or merely enlarges on conceptions which you have already known. Read for new ideas, not for details of word organization.

Prepare ahead for an article. That is, think of the meaning of the headline, and what you already know about the topic. This will help you to sharpen your attention to new ideas. Above all, whenever you do practice on speed, do not neglect to follow up your reading with a mental review of what you have read. The worst possible habit in reading is to let your eyes read on with your mind on entirely different things.

If one practices steadily for a half hour a day while he is reading the newspaper or in a field with which he is already familiar, improved speed without loss of comprehension is almost certain to follow. In one experiment on forty college boys who were slow readers, there was an average improvement of eighty-five per cent in three weeks' time with a slight increase in grasp of meaning. In another group, out of fifty boys and girls, ten had doubled their speed in three weeks with no loss in comprehension. Apparently boys tend to improve more consistently than girls, perhaps because girls ordinarily have done more reading in the home than boys, and are therefore

nearer their normal maximum for their intelligence level.

If reading **comprehension** is weak when one tries to speed up, or if one easily becomes confused, the difficulty is usually with one's vocabulary, and the remedy for this is far more complicated and time consuming. A small vocabulary sharply reduces meaning, and renders difficult reading almost impossible. Two suggestions are usually given. First, try to read more extensively in varied text matter, since the most natural way of increasing vocabulary is through associations and consecutive ideas. Often, we don't have to look up words which are new to us if we see them with other words; their meaning becomes plain through their context.

The second method of improving comprehension is through a carefully worked up word list, including relatively new words, most of which one has looked up in a dictionary, together with synonyms or definitions or examples of their use. For this purpose do not use too small a dictionary since a pocket sized dictionary does not give full word meanings, derivations, and varieties of use. Have at hand at least a collegiate sized dictionary with over a thousand pages, and try to notice a few things about each word. Word tracking and analysis can become fascinating if it is carefully done. Observe the origin of the word, its language and early use; get at the root and prefix or suffix, notice word combinations that are related to it, see how it is used in sentence, observe its commonest standard meaning, and also any colloquial meanings it may have. Because of the many associated combinations of roots, one word well understood is likely to light up the meaning of from three to five other words. Therefore, if one adds three new words a day in reading to a desk list, he will build up his reading vocabulary three or more thousand words a year instead of less than a thousand per year which is the average rate through grammar and high school.

If one really wants to be recognized as a good reader in the sense that he covers quite a range of reading and retains the essential content, he should also practice the habit of writing down a summary of the ideas he has covered. This may be done in notebook form, in the form of a precis, or even in a diary. Often merely the author's name, the title of the book and a sentence or two may be enough.

What, then, are the practisable habits for good reading, which all of us must learn at one time or another to be reasonably competent in this complex skill? They are:

Learn different speeds for different types of material.

Vary the speed for the same material for different purposes of report.

Grasp meanings ahead of time in part by anticipating them.

Review mentally the content of material.

Study word meanings—become interested in a dictionary.

Speed up to nearly ten words per second on light news material.

Build up a good vocabulary, especially in areas of knowledge in which one wants to be thoroughly competent.

Realize that word phrases are often keys to important knowledge.

6. Invite Criticisms and Surveys

The small man does not want criticism; he is afraid of it. The big man often invites it. At least he knows it is good for him. The writer had an opportunity to inspect one of the most modern and efficient plants in the country. The executive who arranged the visit did not say at the end, "What do you think of it all?" anticipating a vague attitude of praise, but questioned modestly, "What kinds of improvements do you think we might make?" Walter Gifford, later to become president of the American Telegraph and Telephone Company, was called the human calculator, so interested was he in inquiring

into every conceivable fact connected with the machinery of communication. Alfred Sloan of General Motors was well known for conducting surveys of every description.

In many cases, large corporations will go to great trouble to collect survey information from every part of the country. The American Psychological Corporation has become a center of much of this questionnaire study concerning every conceivable article. What do people want? Why do they know some brand names of articles better than others? What colors, or shapes, or brands have they preferred and what change would increase sales? These are some of the questions considered in house-to-house surveys.

Even the small business or professional man can benefit greatly by the habit of making careful surveys. One insurance man wondered why he had much more difficulty selling in one part of town than in another part. He studied the types of business in each, the kinds of men he met, and came to the conclusion that the quality of men and the businesses they ran were not important factors. The age of the men, however, was quite different in the two parts, the older group being already sufficiently settled in their insurance accounts. By concentrating on the younger group of men, and their associates who were also younger, he greatly increased his clientele of customers.

Surveys are of many types and degrees of complexity. Doctors, pharmacists, and lawyers can establish sound practices by analyzing the location of offices and the residences of the better class of customers. High-grade statistical ability is often important in large organizations, whether industrial or social in nature, and experts must be used, but in many other cases clear-headed analysis of easily-obtained facts is sufficient.

7. Dare to Think Originally

Most of us are lazy when it comes to reasoning about difficult problems. We either do not care to think at all or follow

the lines of our prejudices or outworn traditional pathways. A Boston psychologist constructed a test with a number of difficult and novel situations incorporated, and he presented this test to business men who were remarkably successful, and to an equal number of men who were of the same educational background but who had been relatively unsuccessful in their advancement. They were also given standard intelligence and information tests. In standard information tests, the two groups were about even, but in the unusual novel situation they were significantly different. The successful man forged ahead. He was not only more apt in his solutions, but presented far more suggestions. Let us take a few kinds of problems which require thinking:

1. Suppose a foreign bomb were placed in such a way as to destroy the main dam in the Catskills which supplies most of the water for New York City. What orders should be issued by the mayor?
2. During the winter of a particular year there were reports of a great many suicides, but an actual analysis of the figures later showed no greater number than usual. How might one explain this discrepancy?
3. How would you explain the fact that a great many of the most powerful words in the English language are very short words—God, sin, soul, love, death, hell, etc.?

We all can think of a few obvious responses, perhaps, but how many of us can write several sentences of suggestions for each of the above items? The number of unusual conclusions may be even more indicative of superior capacity than the logical correctness of each, since it is well known that inventors and other original thinkers have many conceptions which they later regard as foolish. According to one investigator, only one out of ten of the inventions of Edison was found to be

highly useful to society. But there were so many ideas, even a few could make a great difference.

Alex Osborn, a highly successful advertising executive, has written in his stimulating booklet, "How to Think Up," that very few business men are imaginative in thinking about their own affairs. They accept standards or points of view which belong to past ways of thinking. It is the unusual person who can envision, in his own mind, a different set of circumstances. A DeSeversky, a Higgins, or a Kaiser may not be right every time, but they can all see broad programs of expansion that are daringly different from the majority of their associates. In the not too distant future there ought to be people who can incorporate into their visions of occupational adjustment a society in which there is no real poverty, nor vocational maladjustment such that boys of unusual ability are unable to advance educationally, nor monopolistic barriers which keep important inventions from benefiting all of us, but, instead, a fluid society with every opportunity for any individual initiative which does not hamper the rights of others.

Two decades ago a stimulating book was written on the techniques of persuasion for salesmen. Some of the ideas in this book were perhaps too aggressive, especially the conception that every argument should be directly controverted. This is now considered poor selling technique. However, the author did have a scheme which operated to keep the salesman alert and resourceful in his thinking. It helped to give him the reputation of great spontaneity. The method was to break down into several topics, each of which was further subdivided, every question that might be raised on a particular article. For example, whether the article was an automobile, or an article of clothing, one might start with these questions:

What is the raw material? Where does it come from?

How does it differ from the raw material of competitors?

Why was this particular form or style developed? What is its special timeliness? What are its artistic features? Its fit with tradition?

What is the significance of the color scheme? The lines?

What is the improved use suggested by this article? How beneficial compared to similar articles of competitors? Its indirect effect on the user in comfort and enduring satisfaction?

Altogether the break-down of questions and topics ran on for several pages, the suggestion being that the well-informed salesman should have answers to all these items at his tongue's end. If very unusual questions were asked, or points considered in connection with outside competition, the well-trained salesman would be more likely to figure out an appropriate reply than one who had not thought through good responses. As scientists would agree, much of what turns out to be original thinking is really mulling over previously established facts, often in different order, or with slight variations in conditions, or in new combinations. This is the rule for science as well as salesmanship: Be prepared on the old to receive the new.

The Case of Bob—Expert Salesman

We cannot all be presidents of corporations, nor outstanding professional contributors, nor wealthy. We can, however, prepare the groundwork for decided success in a field for which we are moderately suited. The case of Bob will illustrate an initial floundering in three different occupational areas, but he possessed enough general background and adaptability for final unquestioned vocational success.

Bob's father was a business man, a good salesman, who wanted his son to have the benefits of a four-year college course and hoped that Bob would fit into some profession. But Bob

tried the sciences and was blocked off because of poor mathematical aptitude. He also thought of law, but a slight stammer made him wonder if that was his field. Finally, he decided on advertising, since he liked to write, and had picked up varied business information through his father's experiences. After graduation from college, in which he took nearly all his courses in Economics, Psychology and English, he tried out jobs connected with three different firms, a regular advertising agency, a large print shop, and a small industry's advertising department. In the five years' experience in these jobs, he not only wrote copy, and arranged advertising space, but he had to do a good deal of selling. He turned out to be a good contact man. In fact, the print shop manager told him, "Bob, you should give up all idea of copy writing and stick to getting orders by regular selling. People like you, and you've good business sense. But you just can't write the kind of stuff people want to read."

This remark was a severe shock to Bob, but it made him review his entire past, and his capacities more carefully. He readjusted his attitude towards selling, an attitude he had previously absorbed from others, "any one can sell." Instead, he began to assume the attitude: "I can be an expert salesman. By studying my customers carefully, by using the right advertising materials to support me, including good business letters, by selecting the right products as a free-lance salesman, I can be among the best." This was Bob's declaration to his wife, looking in at a new occupational field. He made connections with a furniture factory, and was hired to sell on a commission basis with a small retainer salary. Quickly, he found he could earn more by forgetting the salary and working for straight commission, and also by arranging to take on side-line products made by other firms. Within five years, he was selling six entirely different products in home furnishings—all products in which

he was a strong believer and which fitted together, e.g. overstuffed chairs, lamps, reading tables, and dining room furniture.

But this did not satisfy Bob, even though he was now earning a very good income, more than the average professional worker. He declared to his wife, "I'm not going to be an old conservative in this business. I'm going to be up to date." So he began reading intensively in the field of furniture styles. He learned some important details about lighting and lamp shades, the value of diffused light. He wanted to get beyond the usual salesman's "sales points" which could be used in superficial selling to the average store-keeper. He thought to himself, "As a college graduate, I must compete with the best."

After ten years of selling the six products on which he had concentrated, he was offered two more permanent salaried jobs, one with a large department store as buyer for their department of furnishings, another as manager of a small hotel to whose owners he had sold several types of furnishings. He thought of these jobs for a time, in fact he put in a few months in hotel work to try out this field. But the more he drifted away from selling, the more he was convinced this was his field, and he resolved to stick by it for good. These side tracks of thinking gave him the incentive to re-evaluate his job again, to see how he could make the job even more secure and profitable. Incidentally, his hotel experience gave him a new slant on a large group of new customers, the kinds of durable furnishings hotels must have. But above all, the greatest satisfaction to Bob was his firm conviction that he had successfully satisfied his primary aim of qualifying as an expert salesman.

Bob's case is just one of many types of successful adaptation. A person must realize his main aptitudes. Often he

should actually try two or three fields, keeping alert to variations in industry, location and type of service. Success may be measured in salary or in confidence that a man has reached his right niche, but it grows out of continual re-evaluations of the job he finally chooses.

CHAPTER IV. UP-GRADING THROUGH EDUCATION

THE primary method of advancement up the occupational ladder in this country has been through education. In countries where education was not free and accessible, there has been occupational stratification. The professional fields and the main government and managerial positions were open only to the favored few who went into universities, or at least advanced technical schools. In America, on the other hand, education has been so widely urged that few young people of real ability and ambition have been seriously hampered. True, some business positions have been attained mainly through personal force or family pressure—conspicuously political occupations—but, by and large, the best openings have been given to the better educated. Even in business and industry, Taussig and Joslyn, in a fairly recent study, have shown that the great majority of executive posts have been held by college men. D. Starch found 72 per cent of abler executives were college men, whereas only 22 per cent of inferior executives were college men.

There are two possible explanations for the drift towards a close association between advanced education and occupational up-grading. First, one might say that the information picked up in school proves to be valuable if not indispensable. The difficulty with this conclusion is that in the past many of our best executives have had very little formal education—men like Marshall Field, Carnegie, and the first Rockefeller. A second explanation is that in recent years the large organizations have searched for criteria of superior ability in their young men, and one of the easiest indicators to use is the college degree. Many promising positions now, in fact, are closed to other than college graduates in normal times. Other applicants may have the ability to succeed, but employers do not care to take a chance on the average. One must remember that thirty years ago scarcely more than one per cent were graduating from college, whereas by 1940 over six per cent of the population were college graduates. Nearly every enterprising young man can go to college, and his lack of tenacity in school work is likely to be reflected later on in inferior industrial performance. The increase in general education can be seen in the following table:

	Thousands Graduating				
	1900	1910	1920	1930	1938
From High School	94	156	311	667	1,120
From College	25	34	49	122	165

The amount of increase for the year, let us say, 1950 is a matter of speculation; but due to the operation of the G.I. Bill supporting college education for all veterans who want it, there is bound to be a substantial increase. Some have suggested that high school graduates (including vocational school graduates) may increase to nearly 2,000,000, and college graduates to around 500,000 or more. What this increase in college graduates may do to occupations is still a matter of conjecture. Will we have long lines of unemployed educated people, as re-

ported by Kotschnig in Europe in the 1920's? Will our graduates be running elevators and tractors? Or can we make education function in a flexible way so that new opportunities, interests and supervisory responsibilities will emerge from an available educated public, including many jobs which are potentially worthy of development? The answer is partly in the hands of employers, partly up to guidance counselors and other educators who have it in their power to make education work.

The exact value of general education is hard to measure in a very complex industrial society. We lose sight of basic reading and speaking ability, because everyone is presumed to have it. While visiting Mexico recently the author was told that rates for workers ranged about as follows, after conversion into American exchange, (approximately 5 pesos to a dollar).

Women weavers in the villages	40 to 60 cents per day
Indians working on the roads	60 to 80 cents per day
Average uneducated city worker	\$1.00 per day, if steady
Men who could read and write	\$1 to \$2
	(depending on other tasks)
Men who could drive and do simple repairs on cars or trucks	\$2 to \$3 (usually readers also)
Men to translate (for Americans)	\$3 to \$5 per day
	(as guides, etc.)
Leaders, to persuade country people to kill (at a fair price) diseased cattle, etc.\$5 to \$7 per day

The direct advantage of attending high school and college in this country has been studied by various means, and nearly always to the advantage of "more education." Not only have biographical summaries, such as "Who's Who in America," shown a large percentage of college men represented (88 per cent in the last "Who's Who"), but the earning power of men of professional status, depending on college training, is frequently

compared with the earnings of non-college men. In one study by Proctor, a group of college graduates who had been given the army Alpha intelligence test in World War I, were found to be earning an average of about \$5,000 per year fifteen years later, whereas non-college men of nearly the same ability level in the Alpha test were averaging about half as much.

Data collected by Gorseline in Indiana is of special significance because he tried to get rid of difference in native ability as much as possible. He took brothers with varying amounts of education, some pairs one year apart in their schooling, other pairs two, three, four, or more years separated in educational status. He found that on the average the brother with superior schooling did earn substantially more than the other brother, at the rate of about \$150 per year for each additional year of schooling. That is, a man who had finished college would tend to earn \$300 more a year than his brother who had finished only two years of college. Over a period of forty years, well within life expectancy, this would amount to a difference of twelve thousand dollars.

In some fields of occupation, the advantage of continued education may be small, particularly beyond a minimum such as high school graduation. In fact, one might earn enough by steady work—without added schooling—to make up for staying outside of school or college. This is true of many fields of selling. Some studies show that in life insurance selling, college training is of doubtful value, but most companies are eager to have college trained men. A few excellent salesmen have not been to college, but the proportion of successful college men is much higher than of those not going to college. In general, the more expensive the article and the more abstract its value, the greater will be the value of added education. For selling the small "industrial" policy (on which five cents a week

is collected for each child), even a high school training may be of doubtful value.

The advantage of college training will depend as much on the environment and the atmosphere, as on the particular job. Very similar administrative work may pay very well (above \$5,000) in an office where one meets men of education and culture, or only half that much, if one deals constantly with people of low average status. The sales manager of Cadillac cars in one district said he could use only college men in sales work, since they should have the language habits and many of the tastes of a superior group of customers.

Many new types of business men could up-grade themselves considerably through a leaning towards more education—particularly if this is combined with good personal qualifications. A book salesman, for example, who has not read some of the best sellers so as to make intelligent comment about them is not up to par in that business. Compare the typical book salesman in Toronto, which is noted for its book-reading public, with the average book salesman in a city in the States. The Canadian is likely to use real discrimination—not the typical optimistic but nondescript phrasing of an American book salesman, “Everyone says it is fine, wonderful reading,” when almost any book is handled.

In the field of stenographic work, most high school students can qualify as capable of taking dictation after two years of diligent effort. Many have learned to be good stenographers in much less time. But, for most purposes, administrators want stenographers who themselves have a good vocabulary, so that they can recognize unusual expressions. They also prefer people who can manage the more routine correspondence independently and accurately, with good judgment. Frequently, a stenographer is expected to be a good receptionist as well. Finally, many executives want secretary-stenographers who can edit,

or rewrite reports and speeches, or people who can interpret the sense of a committee, helping to rephrase clumsy statements which were made. Here we have an excellent opportunity for up-grading in the field. There is hardly any high school or collegiate education which would be wasted on a good secretary. If she, or he, is adept in mathematics, the statistical field could be developed; if an artist, the secretary might be used in making charts, or in developing lay-outs or designs.

The principal of a commercial high school was overheard saying that he wanted an office secretary, but could not use one of his own graduates. He preferred to take graduates of collegiate business training, since they had generally been through an academic high school and had at least some course work in the liberal arts. This administrator had been "spoiled," he admitted, by having had one well-educated secretary in the past, a person who always kept busy doing important things. Here is the crux of the problem: narrowly-trained stenographers have a legitimate but a limited use. They stop working when they are not supervised. The educationally well-rounded and stenographically-trained woman can turn to many different sorts of activity which are useful, and which advance the purpose of the office she is serving.

Social Administration

Social service has already been considered (in the introduction) from the viewpoint of a greatly expanded occupational field, up-graded by the gradual accretion of new functions. This has gone hand-in-hand with advanced education in the many outlets for the social worker. According to the state, properly certified social service workers now must have one or two years of graduate training beyond the four-year college course. This trend towards a college background instead of a political influence indicates a great social advantage to the public, as suggested in the following case.

The case of Charley, taken in as a social service administrator, is interesting, because he may have been one of the last of the politically-appointed type, and because he is in sharp contrast to Jane, the prototype of the administrator. Charley was known only because of his father who was a fairly influential business man with contacts not only in Buffalo but in Albany with regulators of business. In the 1930's during the depression, the National Youth Administration was allowed staff members in a certain proportion to the total number of youth employed, approximately five per cent, for purposes of personnel supervision and training. Certain minimum qualifications had been stipulated, but Charley was taken in as an exception. He had barely graduated from an average high school, and had failed in two colleges, finally being given up by his family as a dead loss academically. Handsome and good natured, he was finally smuggled into the N.Y.A. supervision.

He stayed as assistant coordinator of placement, with the main function of trying to locate jobs for youths as employment picked up. But he knew nothing about work and was notoriously shiftless. He didn't know what questions to ask personnel men, and he brought back to the trainers and other supervisors no new suggestions about retraining the youth. He came to work late and left early, with a primary interest in the monthly check, and took pains to be playfully affable to the top coordinator so that he was allowed to stay. He had no vision, no resources of ability, and no interest in young people.

In the same group of social administrators was Jane, a college graduate who had been a secretary for a time. She was also interested in art, in which she had majored in college. Her two job excursions had proved discouraging, leading her to a year of graduate training in social service. She was taken onto the staff as assistant supervisor of training for girls and was greatly admired by them. She radiated optimism, knew how

to encourage and reward learners. She brought her art into play in the development of a Christmas-toy project, and she used her office-work experience to encourage several girls in simple accounting and in selling, but more especially on how to talk and appear before others. Hair dressing and care of fingernails were discussed individually with each. She also brought dance records for their evening parties, and sang with them, and got to know them as individuals. She found out about their home life, their parents' jobs, and what they most wanted to do.

What has all this to do with education, you may ask. There is no absolute relation, perhaps, but it does suggest that her sociological background and her various resources of skill and training supported her good will. The administration of great public benefit associations should be in the hands of men and women with a clear understanding of why these organizations were formed and how others have handled similar problems in the past. Good will, charm of personality, and fundamental integrity should be combined with educational background. The future management of relief measures and community homes need not be "politically" run in the standard meaning of that term.

Engineering and Science

The relationships of engineering training and advanced training in the physical sciences, particularly chemistry and physics, is interesting. One hears contradictory statements of the superior value of each. There are now 50,000 engineers in training, in more than fifteen standardized areas of instruction with mechanical, chemical, and electrical branches occupying more than half the total number. In several fields, it is recognized that four years of training is not enough, particularly perhaps in the fields of metallurgy and plastics which are outgrowths of chemical engineering. In several branches of me-

chanical engineering, extra graduate training is necessary, or men find they are subordinate to graduate students in physics. One sales development man who was a Ph.D.-trained chemist said recently, "In our plant all the real research and development work is done by graduate chemists; we let the engineers do the routine plant management."

The educational up-grading of scientifically trained workers is mainly in the direction of developing outstanding research supervisors. A director of research must be at the fore in his science and, generally, must have made his own contributions—requiring three years of graduate instruction and the earning of a Ph.D. degree. Occasionally the M.A. degree is satisfactory, or the college A.B. if a man has outstanding inventive ability. Mere inventiveness, however, no longer is sufficient in a large industry for the supervision of research. One must know about previous discoveries and techniques, and the basic research foundations, with all the scientific terminology at one's command. In addition to direct research one should have managing ability, and linguistic facility to transmit reports and to make one's ideas clear to industrial directors. Often a scientist is elected to an important executive post in a purely business sense. He becomes in part a cost accountant or purchaser of raw materials, or at least has to know a good deal about one or both of these fields of activity.

Engineering as a field of activity varies in emphasis, on the one hand dealing with research and development, on the other hand with plant management and process control. Construction of new projects may imply, in part, research and, in part, management. The conception of new designs is generally classified under research, whereas the operation of standard structures such as city sewer and water systems is a type of management. Good administrative ability implies a background know-

ledge of the processes under control; it also implies management of men, and therefore increasing emphasis is now given to industrial engineering. To sustain morale and at the same time to exact high efficiency requires a superior sense of industrial relationships.

Often these various functions of management and supervision are picked up after one has completed a college course, and has had some years of experience, either by extension course work, or through outside reading, or by personal experimentation. Formal college training is not necessary. In fact, many leaders in the engineering field have been arguing for a new type of degree or status, in engineering—something which comes after a man has been working for several years, to indicate that he is up to date and capable of continuous achievement. President Karl Compton, for example, reflects this "struggle for a true professional spirit" in engineering ("Journal of the Society for the Promotion of Engineering Education," September 1939) when he considers the need of a true professional degree, signifying that one is now ready to practice his occupation as a responsible independent member of society, not under the complete direction of others (which so frequently occurs in the engineering field).

Engineering occupations show greater variability from prosperous to depression years than most professional fields, and a man's position may be very insecure even during prosperity. One man, through good fortune in part, rose quickly to a position paying more than \$12,000 in 1929, but for ten years thereafter was unable to land a single stable job paying even a fifth that amount. This man, typical of many in the field, became over-satisfied with his progress and stopped advancing himself through formal or informal methods of education. At the end of the depression, he was still unemployed because he was so out of date. Here is the crux of

the matter: the engineer is constantly before the public; he must continually make good, or pass out of the picture. Many administrators and most other professional men can survive on what they have learned two or three decades before, perhaps even four decades. They can in a sense conceal what they do not know by good manners, ability to get on with others, and other substitutes for educational up-grading.

Up-Grading of Nurses

Traditionally, the nurse has served under the orders of a doctor and has carried out many duties which appear heavy and almost servile in nature. Now and then, a doctor will smile at the "professional status" of a hospital nurse. One hospital superintendent was quoted as saying in a meeting of young nurses, "We don't expect you to be independent, and to use your own judgment much; we want you to do as we say." This attitude was strongly contradicted by other more up-to-date doctors in the area. It was also attacked by nurse supervisors. In recent years, the field of nursing has called for an enlarged number of well-educated women to fill important supervising and specialist positions. This development has tended to broaden and strengthen the education of all nurses.

Supervision and instruction in the nursing field is an outgrowth, in part, of the great expansion of the number of nurses in this country. In the war years, this tendency was naturally accelerated. A supervisor is necessary to carry out routine administration of hospital sections and to manage the shifting and relieving of regular nurses, as well as to suggest improvements and promotions for those who are learning. She is a personnel worker as well as professional leader.

Outside of regular hospitals, nurse supervision has grown in such fields as Red Cross work, crippled children's aid societies, and in connection with nursing homes for the sick and

aged. The dean of a nursing school said recently, "We are in urgent need of more high-grade people for nurse supervision, the kind of women others like to work under, and who are well informed." As a rule there is a triple requirement,—experience, good education, and a good personality.

When a leading administrator was asked if she strongly preferred a bachelor degree in such posts, the answer was "Yes, they should be at least as well trained as the better nurses under them." But there seemed to be no one required form of advanced education. One might come up through a standard college, then take nursing training on top of this; or again, one might complete nurse training, and carry graduate work beyond this preparation. In other words, there are some advantages in pre-nurse collegiate training, since girls are more mature and thoughtful as they begin their nurse education; also advantages in advanced training along academic lines during nursing and after the main nurse training was completed.

The post nursing course is more likely to lead to specialization, or a consideration of the problems of administration, with such possible side-lines as accounting, social case work, home visiting, psychology of personality adjustments or abnormal psychology, hospital insurance, and other governmental involvements of the medical profession.

The other great area for up-grading in the nursing profession is in the development of advanced specialists, who are qualified to hold salaried positions, as a rule, in institutions, and know just how to handle particular types of cases. Each type of specialist must either go through specific course work, or should serve a sort of apprenticeship, with special reading, before she is qualified. In each area of specialization, there may be particular traits which are wanted in the nurses, or side-line interests which can accompany nursing to advantage. For example, in the handling of crippled children, some spastic cases

need hand-craft activity to bring certain muscles into play. Not only a knowledge of muscle structure and dynamism is desirable, with a background in physiotherapy, but also some insight into types of crafts and the arts.

Specialized tuberculosis nurses have been trained in some hospitals. Unusual patience and cheerfulness are expected. In the field of infantile paralysis and in work necessary for many war casualties, there is need not only for natural optimism but great fortitude and persistence in holding to a form of drill or muscle re-building. An exercise which may be nearly worthless, if practised for only a week or two, may turn out to be of amazing value if continued for several months. Many forms of muscle nourishment and encouragement should be understood, including heat treatment and electric massages, as well as hand rubbing with various liniment applications. The number of well-trained physiotherapists in the United States at this time is far below desirable requirements even in peace times, but, unfortunately, one must admit that salaries have not advanced in this field as much as the advanced training would warrant.

Psychiatric nursing also offers an interesting specialist outlet for many; and the demands in this area are definitely on the increase, because of the apparently insoluble problems of many returned veterans. One must be conversant with the psychiatric literature, in fact, with the whole field of abnormal psychology and psychoanalysis, to such an extent that she or he is beyond the level of cultism or devotion to a "one-method" approach. Psychiatric nurses and other attendants should be capable of preparing particularly searching family histories, so that they can ferret out the various reasons for neurotic breakdowns in the home. In some hospitals, a nurse and a social worker is combined into one specialist, a person aware of the obligations and background of a nurse and a social worker, one

who is in charge of dealing with the entire family, or group of families in certain instances.

The school nursing field offers an unusual area for advanced specialization, especially in view of the paucity of public health specialists in this country. The school nurse can become the primary doctor of epidemics and a conservor of community health in her district. She should carry on home visits, in part to check unhealthy trends, in part to educate parents in regard to the diets of children. She should be skilled in getting on with people, but also something of an expert on home diets, and food values. In some cases, the school nurse may have reason to work closely with teachers in the management of problem children; e.g. fingernail biters, or those with facial tics or other neurotic habits. These children may need simple re-education encouraged by both nurse and teacher.

Some other possibilities of up-grading in the nurse specialization field are in management of old people in nursing homes or through home visits an hour a day, specialists in child diseases, the management of venereal control in a community, X-ray and radium nurse specialists, and as assistants to doctors in other highly-specialized fields, in all of which there is no end to learning.

As a person becomes a well-trained specialist in one field, her confidence in community leadership develops. She may become almost irreplaceable. In fact, high-grade workers can develop a great community need which never existed before. New positions emerge on the horizon as new types of specialists are encouraged to mature in their fullness of wisdom and specific techniques. As a large area for the development of new future specialists, the nursing field stands high. But there should be one note of caution. Merely naming a person differently, or offering a larger salary does not make him or her a specialist. Knowledge must accompany advancement.

The Personnel Field

During the war time period there had been discord over use of the term "personnel work." In some quarters, the word has lost all specific meaning, in fact, is worthless, since nearly every white collar worker has been called a personnel man or woman. One man whose duty it was to assign O.P.A. slips for the use of gasoline needed by workers called himself a personnel man, though his only training in two years of college had been two years of engineering, which he had failed, and a wealth of experience in football. He had not even read into any social science.

The appropriation of a term, because one presumes some experience and brief course work as its basis, does not guarantee any such respectability and up-grading. Every administrator should have a certain fund of common sense, and understanding of the world's work, but to pose as an expert in a field, one must go considerably beyond. The difference between a trained man with a background and a very superficially qualified individual is not always easy to detect, since many of the impulses of aggressive leadership are toned down as one gets a better foundation in this field.

In one case, a very active administrator entered a personnel office in which one man had struggled for years to develop some tests of aptitude. The administrator immediately tried to throw out the entire testing program as "time consuming" in comparison to ordinary spot interviewing. He had not the background to appreciate the fact that every effort to validate standard interviewing without other substantiating evidence has proven that it is almost worthless. This same type of man would probably go head over heels for some trick publicity scheme of rapid analysis, even if it also had proven utterly invalid, time and time again.

The specifications of expert personnel administration will

depend entirely upon the type of organization. There is a general agreement however, that the following areas of activity should be considered among the duties.

Selection of workers, through tests, controlled interviewing, analysis of educational and experience records, recommendations, etc.

Some supervision of promotion and transfer—at least centralized records of effectiveness, merit rating.

Participation in training and job-analysis policies.

Industrial relations, labor policies.

Concern with morale of workers (as affected by vacations, payment, etc.)

Each one of these areas of supervision may be subdivided, and, according to a particular plant organization, any part may be under administrators not usually referred to as personnel men, or may be neglected entirely. Very few industries would admit that their present organization takes care of all the personnel functions satisfactorily. One of the principal difficulties is lack of co-ordination and insufficient centralization, mainly because of previous commitments and vested rights. If an older member of the firm, for example, has been placed in charge of training, he may be irked by subordinating himself to a younger, more vigorous leader.

Personnel work is, or can be, an extremely important operating field which warrants the broadest training and experience. Several types of courses are desirable, and great options of electives. In fact, there would be strong disagreement about the major fields in which a student should concentrate, whether in engineering, psychology, economics, education, or sociology. A few have advocated government as a major specialization. We take the position that high concentration in any one field is less desirable than a spread into several. The following types of courses represent subject matter which is

directly pertinent, and within the presumed interest of a personnel administrator, whether he acquire his background through formal courses or reading.

General and social psychology.

Economics and industrial organization.

Sociology (problems of social adjustment).

American history and government.

Introduction to engineering (if a general course is available).

Abnormal psychology or mental hygiene.

Statistics and mental testing.

Labor problems and policies.

Field case work.

Vocational and educational guidance.

Placement and employment procedures.

Surveys and research in occupational opportunities.

Job analysis and up-grading.

Methods of counselling, with case studies.

Many modifications or additions to the above list of course fields could be added, according to the university and the particular type of work in which one is interested; industrial, federal employment office, school, etc. Also, any individual may reach out on his own initiative into unexplored territory. For example, one personnel administrator became especially interested in encouraging workers to carry on their own further education. He planned schedules of course work, reading programs, and formed discussion groups at the plant. His organization felt that he was developing the morale of younger workers particularly, but also offering a vent for ill feelings among older men—maladjustments in the plant which needed attention.

Civil Service

The entire field of civil service has been up-graded largely through emphasizing regular formal education as a basis for examinations. In many of the better occupations, only college graduates are eligible to try. Attainment of a degree is the initial screening device. In one of these nationwide examinations, 7,000 college graduates took the examination, of which 2,000 were passed and placed on lists for positions as they occurred. Here was a chosen group, a pool of brains, from which any government group would be glad to make a selection.

Like the English civil service, this venture in examining paid no attention to the specific subject matter of the college person. The examiners were interested in all-around background, on the basis of which specialized training and adaptation could build. The departmental major most often represented by the candidates who passed was that of English literature. To be sure, this is probably the largest department represented in American colleges, but it corresponds to the particular aptitude most thoroughly stressed in examining—verbal facility.

In Leonard White's book "Government Career Service," he calls attention to the need of a reservoir of people of high-grade ability similar to that available from the honor students of English universities, people who would be called upon to interpret and administer laws and regulations, and who can be diverted into every conceivable governmental channel. Accounting, law, political science, foreign languages, psychology, sociology, and the physical sciences as well as English,—all of these were of potential value in administrative posts, but, above all, mental alertness and verbal fluency were in demand. The great American opportunity, according to White, is to replace the political grab-bag of clerical and administrative jobs by a

genuine merit and capacity-tested system. In this way democracy would thrive.

General educational up-grading is sometimes delayed. That is, there is no apparent benefit to be derived for several years. A study was made among girls who had finished a stenographic training course a few years ago in a business college. Those who had graduated from high school received very little more initial compensation on the average than did the non-high school graduates. But the difference became marked several years later. After ten years, the high-school graduates were averaging nearly fifty per cent more than the non-graduates, largely, no doubt, because their experience plus their extra training gave them opportunities to work up as important secretaries or as office managers.

A similar study in the American Telephone and Telegraph Company indicated that all-around grades and college leadership made very little difference in the first salary that a man received, but those men who stood high in accomplishment in college eventually rose to much higher positions in the organization.

Education For What

Several important writers in recent years have raised the basic and somewhat embarrassing double question: What kind of education is desirable, and for what purpose? Are we educating people for moral purposes, for personality development, to be good citizens, to be well versed in the lore of the past, including the Great Books of Antiquity, to earn a living, or even to save our civilization from atomic disaster? Howard Mumford Jones in his "Education and World Tragedy" strongly recommends the latter consideration as paramount today. Although an English teacher at Harvard University and brought up in the classical tradition of humanists, he says,

"As between the lamentable incorrectness of undergraduate information about Pericles or the middle ages, Matthew Arnold or Dante, the catagorical imperative or solipsism, and the lack of any information about the people and nations on most of the surface of the globe, for the next twenty years or so I am willing to risk misinformation about Pericles and French classicism in order to gain at least a modicum of information about Russia, the Orient and other pressing matters."

Some of modern education should, of course deal with matters of the past, but there is a growing demand that education be made vital and substantial for the modern age, which means also vocational. Wallace B. Donham calls for this practicality in his "Education for Responsible Living," in his suggestion that the business executive of the future should have a broad cultural base in respect to important information and liberal attitudes gleaned from the great ideas of the past, but that he must be ready and eager to grapple with current industrial and political problems. He should operate for a whole society, not for a small part located in Wall Street or Washington.

These men are explaining, in part, why the social science departments at Harvard and elsewhere have grown at such rates at the expense of many other departments of the modern college. Government, Human Relations, Psychology, Anthropology are the areas which have made progress in helping us to know people, to evaluate their motives and, in a few cases, to bring them together.

It is lamentable that some college and high school faculty members are still prejudiced and behind the times in the advice they give students. "You must have four years of Latin to study Law or Medicine" is still advocated in many quarters. "Knowing the Golden Age of Greece thoroughly as a solution

for the current problems of society" or "mathematics—including calculus—is the key to all discipline" are shibboleths which are passed around for the self-glorification of those specially prepared in specific areas. They may be the opposite of sound advice to the average graduate of the high school.

Education must, of course, be generalized—to some extent the same for all people; but the more that we can make it function usefully for each person according to his ability and his needs, the more it will motivate students for future responsibilities. There need be no separation of general cultural education and that which is very useful in earning a living. In fact many educators would insist that unless education be made useful its interest will easily evaporate.

In summary then, we have tried to show that educational advancement is one of the most certain avenues for occupational up-grading. Not only is a college degree itself an objective mark of intelligence and integrity in the handling of ideas; it represents the accumulation of a vocabulary, attitudes and ideals from great leaders of the past, methods of scientific study or philosophical evaluation and also some very useful information in professions or business management. It can be an intensely virile growth process when conducted in the right way, never placing one in a routine straight-jacket of ideas.

"But so much of college is theoretical, or academic," many have protested, "it just is not practical." The answer is that this is true, but also that theory is not to be condemned, if it is well understood and becomes the framework for thinking on new problems. The theory of rent in economics, or the theory of conflict in the psychology of personality can become important in all future interpretations of economics or psychological problems. It is the poorly understood or incompletely developed theory that is often unsatisfactory.

The relevance of theory, moreover, depends directly upon the ability level of the person, and his inclination to master it. "Advanced mathematics was like wading through mud," said one successful chemist, "I didn't understand what calculus was about for more than a year of struggle with it; then finally it began to clear up." All of that means that if a general education is over our heads or insufficiently attended to, it will not do much good. It may, in fact, lead to discouragement and confusion rather than benefit.

Educational advance has had an effect in nearly every field of business. Either college training has led to new opportunities entirely (e.g. economics, statistics), or it has sharpened the effectiveness of old occupations (selling, accounting). Many firms are not so much interested in highly-specialized training as in well-rounded education, the ability to read and to write forcefully and accurately.

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THE distinction between education and training is relative rather than absolute. Education means acquiring knowledge and generalized information in verbal or mathematical fields; by training we usually refer to learning definite skills, or practiced ways of doing things. A simple example would be in the field of multiplication. All of us know how to multiply three place numbers by three place numbers. Our knowledge is complete, even though we may be slow or inaccurate in accomplishment. Continued practice for a few hours, however, will bring up speed and improve accuracy very significantly.

So often we have heard "Practice makes perfect," but just as often we say to ourselves, "But who wants to be perfect?" or "Is it worth the effort?" We are satisfied with careless inefficiencies in the various little skills of the home, the office, the store or the shop. Altogether the many little skills pile up into general waste and incompetence. When the days of house cleaning (by efficiency experts) come around, we are no longer wanted.

Good education greatly shortens the time necessary for training; it prepares one for efficiency. In the field of logarithms, for example, most people will need time to understand the theory; they will gain confidence if they know that "logs" are really exponents; hence they should brush up on exponents. The general knowledge aspects of learning to use logarithms will consume a good deal of time, at least several hours for the average person. However, time is also necessary later for training in speed and accuracy, or one will never develop confidence in logarithms.

Throughout school activity some emphasis is placed on learning what to do and what things are accepted as true; other emphasis is placed on how to do them expeditiously. Frequently the school errs in not giving enough time to training in speed and accuracy, since teachers are apt to take the position: "You know how to do this thing; now it is up to you to practice it." In a war training program in aviation mechanics it was important to cut down sharply on the percentage of time needed for efficient mechanical work. In one training group only ten per cent of the time was allowed for class room recitation and study; the actual shop work practice was increased to ninety per cent to the great benefit of the later competence of these mechanics.

In many cases teachers themselves find certain types of problems very easy—e.g. percentage problems—because they have been over such problems many times, and solve them quickly as simple ratio and proportion exercises. But their pupils rarely are required to practice with all types of percentage problems. Very few, for example, can quickly solve these three types of items, one after the other:

- (a) What is 25 per cent of 60?
- (b) Of what number is 60, 25 per cent?
- (c) What per cent of 125 is 60?

The first one comes easily. That has been practiced by most people thoroughly, since most percentage problems come in this form. The second and third may or may not be handled with confidence. Three-fourths of college students are unable to manage them in a reasonable amount of time, with confidence.

The primary rule in all training is practice, then more practice **under the conditions of later use**. Here again the school may be at fault: it presents problem situations in a different form from that presented in crucial experiences later. For example, in mathematics a teacher may spend a week or two on each of several topics—simultaneous linear equations, exponents, line graphs, etc.—but neglect proper practice in mixing these up later in reviews. As a consequence in a final semester examination if the student is asked one type of problem suddenly after an entirely unrelated problem, he may be thrown into confusion. Similarly, students in English classes may have a little practice in writing a *précis* from poetry, but none at all from prose. The conditions are quite different.

But smart people, you may say, are those who catch on quickly, and transfer their knowledge and training from one area to another. This is correct within limits. The ability to make adaptations from time to another, and to transfer practice effects, is an important aspect of intelligence, but even highly intelligent people need practice in making deductions in new situations on the basis of the old. For example, a student who makes very good grades in high school and college mathematics classes may seem to be quite weak in solving problems in chemistry and physics. He has not been required to translate enough word problems over into formulas. A few college men are still insecure about multiplications beyond the fives, or doubtful about combining fractions with different de-

nominators. A great deal of muddled incompetence with mathematics is merely due to lack of specific practice.

Miscellaneous Office Skills

Business men have many complaints against their office help. "They cannot spell," "You can rarely find one who adds correctly," "My secretary can do good work, but she doesn't bother to read her own letters half the time, to see that they make sense," "Each stenographer has to be closely supervised all of the time," "Good filing clerks are rare": these are typical reactions when administrators talk about clerical workers. Perhaps the most serious indictment of all is "They cannot be trusted to keep busy" when they are not closely watched. The answer to many of these complaints is that most office workers are not trained broadly enough so that they are resourceful. If they knew how to do enough things in the average busy office they would not be idle so much of the time. In one New York office during the depression a sweeping order was given to all the minor administrators to eliminate private secretaries, and to pool all their stenographic and other clerical help; this was said to have reduced the stenographic force to one-third the former size, and with very little reduction in output. The stenographer who did not want to learn other things, or who would not switch to typing, routine filing, or other such tasks, was dropped.

Since few office workers are versatile in their training, little variation is expected of them. When specific assignments are through they gossip among themselves, or watch clocks. If asked to do something out of the ordinary they are both inefficient and resentful. They feel that they are functionally organized to carry on certain requirements, and these alone. Proper instruction on specific tasks would not only produce more work, but such office workers would enjoy what they do. Skill brings pride and a feeling of worth.

The particular skills which can be taught to office workers will depend naturally on the kind of an office, what it is expected to do; but actually the scope of almost any office can be profitably enlarged, so there is nothing static or final in the jobs covered. This depends on the imagination of the man or woman in charge and the supervisors over them. If an executive can hand on many skills, he frees himself for more planning and hence his own personal growth, and he also benefits his company.

Moderate speed in typing and taking dictation is assumed as the base to which other skills should be added. Some of the types of skill which may be considered for specific job instruction are the following:

(a) Proper filing, including cross filing. For many kinds of letters more than one duplicate copy should be made, or brief notes to indicate in one system of filing (e.g. by men's names) where the data can be found in another system (e.g. by places). Good filing often implies a sense of logic or order plus a thorough knowledge of business, and this may be in large measure learned by experience.

(b) The use of tabulating index systems, where specially careful studies need to be made of several items for a customer (e.g. name, age, type of business, size of company, age of company, place, etc.) It may be quite important to interrelate several of these items, for example, to locate all hardware dealers in the northwestern states.

(c) Elementary statistical techniques. Ability to find average, or median, with or without adding machines. Variability, and correlation studies are important in many offices.

(d) The use of the slide rule, for aid in percentages and other calculations.

(e) Efficient use of adding machines and multipliers.

(f) A common method of bookkeeping for simple office accounts.

(g) The ability to draw neat charts with India ink. This may or may not be combined with lettering or varied types of art work.

(h) The use of library references for filing and cross filing a library of reports, manuals, or pamphlets. Some well-educated stenographers can become very useful in tracing patents, or in collecting material for speeches, or reports.

(i) Copy writing, or filling in sentences or paragraphs on brochures, house organs and advertisements.

(j) Giving and correcting simple tests of proficiency to employees.

(k) Locating places, rail or aviation routes for executives, making reservations in hotels, etc.

(l) Editing the language used by administrators in reports, or in letters of consequence.

(m) Managing routine correspondence independently; setting up letters for various types of inquiries.

(n) Training or supervising subordinate stenographers or typists in such a way as to build morale, through developing their skills and pointing a way towards promotions.

(o) The use of foreign languages to keep administrators informed on foreign markets, or on technical articles in current journals.

(p) Improved receptionist techniques. Often the success of an office will depend in large measure on the way telephone calls are answered, on how people are greeted, and the accuracy and thoroughness of the information given. This may involve definite attention to personality up-grading, as discussed in chapter 7.

(q) Office management, including an orderly check on supplies, the flow of work in and out of an office, the parceling

out of stenographic aid, etc. This implies the willingness to take responsibilities, and adjust to all sorts of inconveniences (e.g. illnesses of associates) with good humor and ingenuity.

(r) Expert stenography, including the translation into clear typewriting of the notes from committees, from especially high pressure executives or from dictaphones.

The mere enumeration of these supplementary skills should suggest many types of education or background that are usable in the conduct of office work. Any one of the above could be subdivided, or enlarged to include specializations. For some of these skills, a break-down into separate specific movements, or adjustments might be desirable. For example, one might list all the things expected of a good office manager and check a person now and then on the completion of these activities. If there is excess gossiping, or abruptness in meeting strangers, or "material lost in files," an inventory of specific duties would be more effective than merely scolding, or demoting the manager.

Methods of Training

How can an office worker get the right training for the skills mentioned above? That of course depends on the breadth and complexity of the skill. For some activities, e.g. effective editing or translation, a good education is prerequisite. In general a college trained person should be far more adaptable along many of the lines mentioned. However, specific drill is also necessary, with the following guiding principles always in mind.

1. Describe clearly just what is wanted, and why.
2. Give an illustration, carrying it through to the end, as a basis of clarification.
3. Have the office worker try out the activity two or three times.
4. Suggest changes, modifications of position, or method, or attitude.

5. Ask for further trials, allowing for considerable error or clumsiness.
6. Notice signs of improvement. Endorse, or comment favorably to encourage and stamp in the correct trends.
7. Review the technique again and suggest improvements in method before the person settles down to "practice in error", or point out awkwardness which can be remedied. If possible bring in a recent expert, or call attention traits in older workers that fit into the skill.
8. Occasionally review the worker's progress, commenting favorably on all apparent improvements that have been made.

If these eight steps are consciously incorporated into the teaching and supervision of new skills, or methods of work, they are bound to develop the person rapidly, and with the full cooperation of the workers involved. The time spent in teaching will ordinarily be repaid several times, first, by improved efficiency in the staff of workers; second, by the inspiration and morale created by a **learning atmosphere**. In one office of about twenty workers, each person felt it a duty to develop new kinds of skill. When one thing had been learned—and most of the learning took place at the noon hour, or during the last half hour of the day—a new type of performance was suggested, and tried out. The general morale of the workers in this office was as high as one could expect. Very few were clock watchers. **There was always something which each person could do, and generally there was some choice of things to do.**

The possessor of multiple skills gave the suggestion to every worker that he should be constantly on the job. The director of this office, which combined a research as well as administrative function was a woman of unusual imagination and inge-

nuity herself. She merely assumed that everyone wanted to pick up the same techniques which she had taught herself.

But an interesting thing happened in this same office which seriously upset the morale of the workers, and dampened the ambition of all the workers to work steadily and to enlarge their skills. During a period of illness of the director an assistant director was asked to take over the main office management. He was moderately well informed in the general area of the work and possessed a good social "front," but fundamentally he was lazy and unimaginative. Instead of continuing to participate in the program himself as a functioning member, he was on the outside, "directing" and "too important to monkey with the detail" as he suggested to one of the college assistants. He spent much time reading the newspapers in the office, or in social gossip with those who came in, and often criticized the main program or policies of the regular director who had been extremely successful. Within a few weeks the entire staff settled down to a minimum production basis, learning nothing new, since much of what had been done was frowned on or not attended to at all.

From the above illustration we see the immense importance of a directing leadership in the acquisition of office skills and in general group participation in the learning atmosphere. A good executive keeps things humming, because he is in the midst of the entire program. He may not have time for much of the detail itself, but he sees that it is operating. He clarifies, instructs, praises and corrects. He can never escape the steps we have enumerated above, at least in the management of some of his subordinates.

Job Instruction in Industry

The subject of instruction in industrial jobs has become a ticklish one to handle because there are two or more meanings suggested. If one has in mind the problem of breaking a job

down, de-skilling as it is called, in order to speed it up and increase production, the suggestion is not exactly pleasant. Too often, the human being has been forgotten in the effort to make the work itself more profitable to management. Oftentimes, too, a job which may be very productive for a short time under close supervision will produce in its workers nervous symptoms or low morale as the job is continued. Frequently, there is no up-grading whatever in such de-skilling operations; the work is changed only for the good of management, the man himself being thrown into a straight jacket. His movements are restricted, promotion and learning are discouraged.

If, on the other hand, one indicates clearly that by job instruction one has in mind certain advantages to the worker, as well as to management, the picture may be very different. Under favorable conditions the job instruction expert may be welcomed as a great boon to the worker. He may show how the work can be done more easily, how the coordination of that job with another job can be improved, and how re-routing of materials or changes in postures and other arrangements can change the "flow of work" in such a way as to relieve strain or increase wage payments without further extra burdens. In order to induce the right attitude in the worker the company must have established full confidence in its integrity from previous work adjustments. If A and B and C have all gone through a period of job training and come out at the end with even slight additions to their pay envelopes and if much of the actual improvement is induced voluntarily in the worker—that is, if he can do it in part according to his own choice—the job reorganization is welcome.

In one large firm with nineteen factories, an engineer was assigned to the problem of standardizing and improving many of the jobs which were common to the several plants. He used no stop watch which was visible to the workers themselves, but

he did time roughly several samples of complete jobs and was able to tell foremen in one plant that they were behind the normal rate found in other plants, and often just why their work was below par. He was sufficiently versatile himself to show exactly how many jobs could be improved, and had an attractive enough personality to encourage imitation. In fact, his continual chuckle and wise-cracking (at his own expense) kept all about him in good humor. The type of job improvement he brought about for several types of work was probably far more effective, in the long run, than a more mechanical type of de-skilling.

So much has been written in the field of scientific time-study that we are not attempting to cover this field. It is often thought of as the largest aspect of industrial engineering. Refinements of this field have often seemed logical, but frequently turn out to be too elaborate for use, or to have exaggerated the importance of some aspect of the work. You cannot standardize some jobs, so that they will be done exactly alike by a tall man and short man, for example, or perhaps by a highly intelligent person in the same way as by a dull person. Personal variability must be accounted for. Moving pictures will frequently light up important parts of a job, and frequently these pictures should be slowed down for minute analysis of movements; but there is often more than one "right way". Sometimes an industrial engineer will go to great lengths to save walking or an extra arm movement in a worker when the worker does not object to added walking or when even the extra arm movements simplify his bodily rhythms and feeling of balance. In general there are some principles which can be held in mind, even by those who are not experts in time and motion study.

- (1) Show very clearly what the job is, just what it is supposed to cover. A careful explanation, and a good

demonstration will frequently suggest to the worker that he has been carrying out some unnecessary adjustments. Moving pictures of efficient workers can be a great aid.

- (2) Be sure the worker is in a mood to imitate and to learn new ways. This will depend largely on the attitudes—sociability and poise—of the trainer.
- (3) Give plenty of opportunity for try-out, or practice, before expecting perfect results. Workmen are often slow to catch on, and must realize the advantages of some changes slowly. As slight improvement takes place they will be more willing to make new efforts. A good trainer is always alert in commending even the slightest improvement.
- (4) Other things being equal, both sides of the body should be involved in large movements, with some balance or equalization of strain on the left, as well as the right arm. This has been referred to as the principle of bilateral symmetry.
- (5) For major movements always prefer large muscle to small muscle adjustments, since the large muscles will need less supplementary bodily tonus. A finger or wrist activity may actually require bracing and tension throughout the arm and trunk, with greater likelihood of cramp than an ordinary large arm adjustment.
- (6) The desirability of combining several movements into a smooth complete unit is mentioned by several authors, particularly by Gilbreth in his insistence that the number of “therbligs”, or work units, be reduced.
- (7) Smooth or curved movements, with a continual flow and rhythm, are much more satisfying to the organism than irregular, or jerky movements. One merely

has to notice the graceful sweeps of a good athlete in slow motion photography to appreciate the well rounded smoothness of the skilled expert. Jerkiness, and irregularity produce tensions which in turn increase bodily fatigue.

- (8) The principle of progressive measurement is recognized by all educational psychologists. One should be able to notice, from time to time, how much he has improved and in objective, quantitative terms. For this reason many experts have devised charts of progress, showing weekly or monthly increases in production speed or improvements in superior workmanship. The use of a stop watch is inevitable in much of this measurement of progress.
- (9) The principle of specific reward requires that a person who is learning be correctly rewarded as he progresses. The amount of the reward does not seem to be nearly as important as the immediacy of it, or its close attachment to effort. Thorndike has shown that a man can practice indefinitely on throwing darts, or similar acts, but that if he is not informed as to when he improves—at least by the chance to see where his dart strikes—he will make virtually no improvement. Practice makes perfect only when it is enlightened practice.
- (10) The principle of routing for efficiency requires that one should arrange his tools, or materials, or his position with respect to others, to reduce strain and unnecessary exertion. One household economist found that through the efficient arrangement of food and utensils in the kitchen she could reduce her work by a half. Those who have assembly jobs benefit greatly by the proper placement of materials. The height of chairs and tables may facilitate, or hinder, a good work flow.

In one case of a greatly disliked job, cited by Myers, which girls were constantly quitting, or from which they begged relief, the seat was raised two inches and a back installed, after which there was no more trouble.

Above all, the worker, in any job-readjustment program, should be treated as a partner, with the clear understanding that in the end he does not suffer. If the re-organized work program does not show marked improvements in production or in ease of performance, the time-study engineer should be quite willing to go back to the old scheme, or seek new adjustments. The whole procedure should be regarded as a game, in which management and worker are competing together against outside forces.

This writer is of the opinion that each person can be his own job analyst and trainer to a large extent. He should look about him to see how other experienced workers are managing their postures, how they start their work, where they seem to save time in comparison to other less productive workers. We have nearly all made improvements this way in watching athletes—in tennis, baseball, golf, or ping pong. First comes the stance, or general bodily posture, with apparent relaxation combined with alertness. Then, we may notice the appropriate bracing of the body, and the final full swing of well coordinated muscles. We must, of course, try this behavior ourselves, checking every detail so far as possible; then try again many times. There is no substitute for practice.

In co-ordinated work-study courses college students who go into factories have often indicated that by a study of the best workers plus their own improvements, they could easily outstrip old, experienced workers, and were usually criticized in the process. The average worker does not want to improve, since he distrusts the motives of management. In a study from Antioch college, students and personnel investigators

found that many students had more difficulty keeping down their productiveness to the standards set by the group around them than in working up to the standard efficiency.

All of this suggests that the place to begin in job training is with the relationship between management and worker. If that is soundly fostered, with the correct learning atmosphere established, improvement will go on rapidly; if it is left to chance and the natural antagonisms which arise, learning will be blocked. In many instances a festering sore within the relationship prevents a favorable man-management cooperation. Perhaps it is a particular foreman who has been unfair, or sarcastic. Again, it may be a regulation which is out of date, e.g. a rule that every change a man introduces must be O.K.'ed by his immediate foreman and he can have no recourse to higher officials or training experts without the full permission of that foreman. In many defense plants of every city a regulation of this sort was a serious hindrance during the early months of the war, because good mechanical workers were often promoted into leadmen and then foremen in spite of their dogmatisms and inability to get on with others. College students reported many times that everything was left up to one supervisor who was often a very dull or irritable person. In a reasonably large plant job training should not be left to chance but placed in the hands of a good instructor, under whom men like to learn.

Goal and Sub-Goal Effort

In recent years psychologists have written about sub-goal conditioning in the learning and motivation of animals and children. For example, a rat is taught to run a fairly complicated maze, with a slight tilt to it, or with a noise sounding to one side. Unless the maze is very well learned, the rat can be very much disturbed by tilting the maze a different way or changing the direction of the sound. Similarly when we teach children in the class room or in the laboratory, we often intro-

duce factors which seem unimportant to us, but which are actual serious handicaps to them outside the school. Suppose all learning takes place only through the dictation of a teacher who stands directly over one, or under very strict rules of not getting up from one's desk, and by keeping very quiet. Soon a child will become adjusted to studying **only under those conditions**. Although the main goal before him is a book and a lesson to cover, an important sub-goal has also developed—this strict attention to rules through fear of punishment. Exactly this thing happened in a large boys' military academy in which the writer taught one year. Studying was by the clock, at specific times only, and no boy would think of looking at a book except under compulsion. For this reason the record of many military school graduates in liberal arts colleges is not favorable.

The same atmosphere of sub-goal attention to the boss can develop in every office, or industrial plant, with a tacit agreement by all that the minimum is the standard. The real attention is directed not towards work, but to "getting by" with a foreman who requires subservience to his orders. The only remedy in such cases is a re-training of the foreman himself, or preferably his replacement, if he is not willing to establish an atmosphere of trustworthy accomplishment. He should first take measurements of how much is accomplished; he should then study the location of urgent improvements with the willing support of his men.

In many war plants the problem of "hoarded labor" was so serious that more work could be done in a department if a third of the workers were changed to another department. In some of the inefficient departments men, or women, had jostled, and kidded each other, and soldiered for so long, they had to be taken in hand like little children and coaxed into a working attitude. Men were hoarded, in part, because of the

very low efficiency created by poor leadership—too many lead-men and foremen who themselves were unreliable.

Sub-goal conditioning of workers refers primarily to a social atmosphere which is a favorable rather than unfavorable background for improving skill, for finding short cuts, and for creating co-operation. Most shops are really not interested in this, because of labor regulations or on account of the lack of real instructional interest on the part of foremen. Occasionally one finds a small plant, or a garage, or other type of repair shop where there is an electric environment of enterprising advancement that is evident to the casual customer who walks into it. Everyone is busy, and perhaps on the run, frequently changing from one task to another, but well enough versed in all tasks to keep going at top speed, and with cheerfulness. The less evident the foreman is in such a plant, the better it runs.

So much has been said about sub-division and concentration of effort to create efficiency that many have lost sight of the work atmosphere which can be created by diversification and changing of skills under an enthusiastic foreman who is willing to "show how," and praise, then show again to any willing learner. Men become too busy to talk idly to one another, or to stop and wait. The best atmosphere is one in which noise, light and space, and all other factors are co-ordinated into a total beneficial environment with the minimum of sub-goal irritants and conflicts.

The Social Atmosphere of a Job

Many conditions determine the atmosphere of learning found in a shop, or office, or laboratory. Some of these lift the spirits of men or women, others depress. It is largely within the character of the manager or foreman to tilt the balance in one direction or the other. He can introduce various factors.

These factors raise morale:

- Sympathetic leadership
- Rewards direct
- Promotions possible
- Encouraged to keep learning
- Feeling job is important
- Knowing a lot about the job
- Experiments with new habits and skills

These factors depress morale:

- Sense of duty over-emphasized
- Requiring rigidity in jobs held
- Older workers — shiftless — not loyal
- Responsibility not trusted
- Vacillating or discouraging leadership
- Constant threat of unemployment

As indicated above some of the items are important — endorsing habits and duty — but do not weigh as heavily in determining morale as the social factors, sympathy and assurance of promotions on the one hand, and depressing and inhibiting social influences on the other hand. The most important social influences are on the ends of the balance where the effect is greatest. The first group of factors presents a favorable learning atmosphere; whereas the latter items depress us and discourage all learning .

Clarifying the Goal

In many fields of endeavor, those who try to teach others under them are much too general in their instructions. For

example, a workman is told "you are not working fast enough," when actually he should be told in what respects he is slower than he should be. If he tries to hurry all the way he gets jittery, or careless, in important places. Some teachers are fond of the word "careless," when they don't tell workers just what they mean, and specifically how the person's adjustments should be changed.

Schools and colleges are frequently much to blame for not being specific and restrictive in their instructional goals. A student can go all through four years of college, writing papers for most of his courses, which are perhaps marked with a "C," and never know specifically why he should not get a "B" or "A." He can only struggle vaguely, with little chance of improvement. If he is stilted in his expression, or biased, or does not write enough, or tends to be dogmatic, or too emotional, he may never know what the majority of his teachers think, and therefore how to improve.

Vague generalities are very common in offices, and in the instruction of young professional workers. A person is told that he, or she, should be more "courteous," or "stick to business," or be more "gentlemanly," or worst of all, "more efficient," when specific forms of conduct are not pointed out. Many of these words are over-all expressions that have little meaning unless we make them specific and objective, towards which a person can aim. For example, an office clerk who impresses an office manager as not "neat" may be careless in her hair-do, or her finger nails, or in clothing, or insufficient bathing, etc. The remedy of one or two types of personal defects may be sufficient to completely alter the attitude of others towards her.

We are likely to think of some personal defects as so complex or fundamental, that we give up, without trying out specific forms of remedy. For example, if a person shows

emotional excitement, or fear, in meeting strangers, we may take the stand "what's the use" when a few very specific suggestions will create a definite improvement. Holding the head up, relaxing the neck and chest with deep breathing, may be a very good start for a young person to practice for a few times.

A vague and ambiguous effort has led many students into confusion which ultimately can only result in failure. "I understand everything about the course, but I cannot pass the examinations," is a common remark of the failing student. Another is "When I am reading the book everything is clear, but the next day my mind is foggy again," or "I know as much as other people in the course, but the instructors don't like the way I put it down." All of these remarks and many others suggest that high school and college students often stumble on with very poor insight into their main difficulties. They build up grudges or confused attitudes, feeling that the world is against them. Usually their parents have set goals which are too advanced for them, such as a professional career, and they neglect the in-between skills and accomplishments which must be mastered first; their vocabulary expansion, ability to take notes, effective reading, good essays or oral expression, a feeling for logical coherence of ideas.

A man who had been working for several years decided to be a dentist. He had been successful in two fields of work, in fact had stored several thousand dollars for a professional training. But he was very rusty, and although he spent seven or eight hours a day in study, in addition to classroom attendance, he could not seem to recall the correct things in a class test. But he was a man of patience, and previous success, so that he did have confidence and would not be discouraged. He received some aid in his mathematics by tutoring, and he gradually learned to take thorough detailed notes on his reading and his lectures in biology. For one chapter alone he had

written — either technical terms, drawings or charts — on thirty pages of scrap paper. Although he failed miserably in the first test of the course he gradually developed confidence in each type of essential skill, and was able to pass the term's work, ultimately to make good in dentistry.

Progress comes in stages, not at one time, or in all skills gradually. One must particularize, narrowing himself to the next best step ahead. A young doctor is taught to be always learning one or two new techniques, or to be improving two or three methods he has previously learned. Similarly, a lawyer goes from the management of one type of case to another. If he tried to cover everything at one time he would be lost. A universal rule for all of us, then, is to narrow any complex field of activity, before we try to master it.

Rules for Self Training

By way of a summary, several rules can be suggested that may be applied by each individual in his own process of individual advancement. In many areas especially in the professions, no one is likely to encourage continual self-improvement; in fact, the majority of our associates may be quite satisfied in our lack of advancement. A young lawyer or accountant or other independent worker must watch his own progress.

(1) Occasionally compare your activities with other men or women in a similar occupation. Learn their hours of work, their number of clients or outside contacts. Usually one should aim to hold up to the average of other successful and somewhat older people; but often one might deliberately keep below the quantitative standards of others in order to do better work, or find time for practicing some new technique or mastering a new regulation. But any measuring stick helps one to know how he stands, and awareness of one's accomplishments is a first step to change in any direction.

(2) Specifically reserve a few hours every week for self-development entirely outside the requirements of your job. Usually one may read, or practice extra activities in the evening, but some men find the early morning hours make them more alert for new experience.

(3) Make occasional strong commitments about your progress with relatives or close friends, e.g. "I expect to finish good notes on this book by the end of the week." But be careful not to disregard a commitment. When such statements are easily thrown aside a serious character defect is evident. Emotional enthusiasms often are accompanied by easy giving up, and discouragement, and a consequent loss of self respect.

(4) Be assured that your environment is right for new learning; good light, freedom from noise and other distractions. In most new experiences one cannot be interrupted by friends, or fellow workers, without losing one's drive.

(5) Make your goal specific but not too distant. Many — perhaps the majority — of us, err on the side of vague generalities. We want to become good scientists, or outstanding salesmen, etc., but don't point out to ourselves clearly the specific first steps.

THE training and the development of character has often been called the real goal of education, and in fact, a large percentage of preparatory schools and colleges were originally founded for this avowed purpose. There is no definite agreement on the meaning of the word "character", but it is commonly accepted as referring to moral conduct, or the tendency of an individual to hold to the better and more ideal codes of behaviour in his society. There is hardly an international accord on the constituents of a good character, but in general the leaders in our Euro-American civilization would agree on the importance of such fundamental virtues as honesty, integrity, perseverance, and idealism. A number of studies made in offices and industries have suggested the great importance of these virtues in the productivity or effectiveness of all ordinary occupations. Some writers have attributed the failure of many an industry or corporation to defects of character. This was deemed even more important than lack of education, experience, or intellectual ability. The preparation of a young

man or woman, therefore, should not neglect attention to integrity and idealism.

The first important work that was ever done to determine a method of measuring character was the scientific work of May and Hartshorne, whose studies were published in the late twenties. They were interested in actual measures of conduct, as well as being eager to determine the inter-relationship of good behaviour and bad behaviour when blended in the same personality. Some of their main conclusions are worthy of note. They are in part summarized below, along with comments by the author.

(1) Character has two distinct aspects which can best be defined as negative and positive. The first is concerned with the Biblical admonition "thou shalt not": the insistence that we do not steal, lie, cheat, act unfairly, or quit tasks which have been assigned to us. The second aspect is concerned with the actual willingness, desire, and inclination to be charitable, to co-operate, to put aside one's thoughts of personal gain to concentrate on social goals. May and Hartshorne found that boys and girls who were careful about the negative or avoidance side were not necessarily interested in the positive. In fact, the religious or ethical practices of the family stress one aspect to the neglect of the other. To Kipling's Kim there was no negative side to morality. He was an inveterate liar and conniver who would not satisfy our American notions of good conduct, but was a charming youth who piled up merits of good will and charity in his relations with others.

(2) Each individual's character is made up of many separate acts which are quite often mutually inconsistent. They are specific to particular occasions and have been built up at least partly as a complex system of separately learned behaviours. One may be honest about not stealing, but very careless about telling the truth. Or he may tell the truth to some

people and not to others. What appear to be rationalizations of character to one often seems ridiculous to another. A student who had received high honors in his college performance was caught cheating in some home work he had purported to have finished. His particular confession of guilt emphasized the rationalization: "Well, at least I have never cheated in an examination!"

(3) The honor of a man may vary with his different moods almost as his temperament does, and may vary considerably from one scene to another depending on his feelings of security, charity, and loyalty. Many men in the war, who would never think of stealing merchandise from private concerns, stole goods from army supply depots. This increase is stimulated mainly by cynical hatred of the army, and the consequent attitude of getting away with everything that isn't nailed down, but it is partly attributable to the ease of pilfering in the army as compared to ordinary, civilian life.

(4) Character traits may be out of balance and inconsistent, but there are those rare individuals who have successfully integrated their character traits to the extent that they become abstractly matured and have reached a plane high enough so that they cannot be challenged on moral grounds. They are not so much controlled by the dire consequences of an ill-advised act, or even the incentive of a merit system (such as military medals of value and good conduct). Rather, they were brought up under precepts and guides which, although they were merely habits at first, grew into widely applicable ideals.

The maturation of an individual in the direction of personal integrity and responsible action is a matter of great interest to business executives. Relatively few can be trusted to work as hard when un-supervised as when they are being closely watched. Rare is the person who finishes his assigned jobs and looks for more, or works with such loyalty as to ignore his per-

sonal advantage, whether this advantage takes the form of extra compensation, promotion, or other recognition of his worth.

Any experienced manager is familiar with most of the following complaints which serve to indicate an inadequate character base in an employee:

That man repeatedly comes in late and assumes that nothing is wrong with it.

He quits early, and rarely does anything after four or four-thirty even though he is hired until five.

He uses stamps and office stationery for personal advantage. He expects to "finagle" small supplies.

He exaggerates what he has accomplished and takes credit for work done by others.

He deliberately covers up his short-comings, the things which he has done poorly, using others as scapegoats.

He deceives customers regarding the quality of his goods and also the competitors' goods.

He is not fully reliable in looking over important letters or consignments before they leave the office.

He cannot be trusted to hold up the dignity of his job. He may clown before those working for him or otherwise destroy their respect.

He creates envies or jealousies and therefore poor co-operation in his associates, with whom he knows he should work amicably.

He is not charitable in recognizing the good points of those under him, and he doesn't stimulate extra effort at all.

He is moody and unstable, and continually uncertain about the ideals of the company. He reflects poor loyalty.

He gives up his aspirations too easily and is continually changing his mind so that much effort is wasted.

These last three items, or possible complaints, deal once again with the positive side of character growth. The mature

individual will reach out in the direction of sympathy and reliability, and is not so much concerned with what society censures. Some of these positive character traits are worthy of special consideration and elaboration.

Perseverance

Perseverance is a character trait whose ramifications extend to account for a major part of success in any field. Any manager who is at all in contact with his men knows that the promising worker is promising largely because he has the drive to overcome obstacles and the persistence to overcome handicaps. There cannot help but be a high correlation between success and perseverance, but there are some interesting observances that should be made at this point.

Perseverance can of course be entirely valueless if the energy it calls forth is directed toward an unworthy goal. We would certainly not condone the steady plodding criminal who commits an unsocial act just because he showed an unusual amount of perseverance. And the scheming, treacherous, but terribly ambitious and persistent Nazi spy won little of our sympathy. The office worker who stubbornly plods ahead on a job which he has been told is not useful, or which he is not trained to handle competently, may create serious confusion and waste.

Oftentimes the distinction is so minute that the average man is hardly capable of judging whether a goal is worthy of attaining or not. The inventor Edison was continually accused of puttering with things which seemed futile to others. Taussig in his survey of "Inventors and Money Makers" calculated that perhaps nine out of ten of Edison's inventions were not usefully developed. Yet, who would dare to state that the apparently unworthy efforts of Edison were not the basis for further successful exploration.

Perseverance of a useful type should include a balancing of the time and effort in one field of endeavor with another. An experimenter at the University of Chicago tried to measure a general factor of persistence, and for this purpose constructed an endless maze through which a man tried to find his way, blindfolded, steering a pencil through metal grooves. The subjects were given the false impression that there was a final and successful ending to the maze, and the measure of persistence was the time that each man was willing to stick to the job. Some gave up rather quickly, while others worked consistently for two hours or more. The interesting part of the results was that those who persisted the longest tended to be poorer students, on the whole, than those who gave up quickly. Undoubtedly, many of the alert students came to the conclusion that they did not have the time to waste, and that success in this field was certainly not important. Altogether, one cannot escape from the conclusion that socially valuable persistence should combine definite goals to attain with the correct apportioning of one's time.

A final point often and justly raised in connection with perseverance is the ease with which we give ourselves excuses to avoid steady effort. Wherever our responsibilities lead us, we always seem to be trying to dodge regular duties by all manner of rationalization. "Why should I do the dishes or any other household work when I could spend my time to better advantage?" "It isn't smart to keep doing the same things." "A person can study best with the radio on." "Some people learn to sell, write, figure, or do many other things by routine practice, but all you need to do is use the old bean."—these and many other pretenses of superiority are uttered in serious tones to the world around us. Actually, as John Dewey in his "Human Nature and Conduct" and many other psychologists have repeatedly shown, a man's habits and routine skills do not con-

strict him, they set him free. With many well-learned habits he can throw his attention on novel or unusual adjustments with ease, whereas the unskilled or procrastinating person must inevitably fumble over the elementary things.

In many homes parents unwittingly connive with their children to avoid much beneficial practice. Father says, "I guess you have tried pretty hard and have earned a vacation," and his child is quick to seize upon this avenue of escape from unpleasant duties in his future contacts with work. In some homes, any complaint from a pouting child brings relief from steady effort, so that sooner or later the boy or girl loses his self-discipline and stamina in the face of all difficulties. A problem becomes something to escape rather than conquer. One college professor, in discussing the problem of his only son at home, said "I try to keep him at work, but his mother does not like to see his brow wrinkle and takes him off to a concert or a movie whenever he becomes worried about his work."

Perseverance is the primary impulse behind all habit formation and skill. No amount of good will or reasoning can take its place in the development of character, and in the preparation of youth for useful living. It leads to self respect and confidence in oneself as a going concern. Without a past record of steady endeavor in our practice and in overcoming difficulties we tend to lose all confidence in our own power and abilities. "I'm sure I can master that subject!" is the self-reliant statement of a boy who has run into temporary difficulty perhaps, but who has had the experience of surmounting such difficulties.

But, to review the warning of a few pages back, let us not make a fetish out of perseverence! There is no special personal or social advantages in pure repetition, or in pursuing tasks which are not beneficial or well thought out. If one's goal is

socially acceptable, and he has it constantly in sight, he cannot go wrong if he tries continually to approach it. The "A-B-C plan" for each young person to follow, then, should read as follows:

- A) First know what you want to do, getting it clearly in mind, and considering its value to the social group, as well as to yourself.
- B) Understand the method of approach and mark well the boulders, rocks and other hindrances which line the path to your goal. Get the benefit of advice and imitation if possible.
- C) Practice unceasingly until you know you are well beyond average, remembering that perseverance remakes jobs.

Integrity

As far as personal character is concerned, the word integrity is almost a catch-all designation, and indeed it does overlap considerably those traits of honesty, fidelity, loyalty to an ideal, and even perseverance. However, integrity is a character requirement in itself, and is really not just the melting pot for all these other traits. By integrity we refer to becoming responsible members of a business or professional group, people who rigorously live up to the ethical codes of their group and whose words and efforts inspire and stand for trust.

Too often, an individual with good manners and intelligence as well as a good education is socially irresponsible. A college graduate, after deciding to become a stenographer, practiced typing and shorthand and the other requirements of her trade. She became at least average in ability along these lines, and was far above average in her personal control of language and all-around intelligence. But the results of her work in a business office were very disappointing. She would take dictation, then forget to type up the letter. She would

misplace letters and memoranda, and was constantly forgetting small responsibilities. Above all, she would not read over carefully the letters she had written, and in nearly every case when the executive re-read the letters, there were meaningless sentences, misspelled words, and typographical errors in abundance. Although she was constantly cheerful, as a receptionist she often gave the wrong impression or neglected an important bit of information. At the end of two years she finally quit, and her departure was accompanied by three cheers from the executive.

Occupationally speaking, integrity is the quality of living up to the standard requirements of one's job. The story is told of Joe, a feeble-minded boy in a farm colony, who was set to work at painting a barn. He was very proud of his responsibility, and had never failed to live up to a trust if he had understood it. Unfortunately, the colony leader forgot about his instructions to the boy, and when supper time came along, Joe did not show up. Nor was he present at nine o'clock when "bed-check" was held in the dormitory. Eventually, the leader was notified, and he recalled that Joe had been given the painting assignment earlier in the day. At the barn, they found him still at work by lantern-light.

The dogged determination of Joe to continue his assignment, or the careful planning of Sergeant Rowan, who carried the "Message to Garcia", both are evidences of a high sense of integrity, and they emphasize the two different angles of holding oneself to a trust. Joe was far from intelligent, but he lived up to the highest expectations of effort that could be demanded of anyone. A sense of integrity implies this effort, this willingness to deny oneself pleasure or even food and sleep to satisfy the demands which have been made of us.

But integrity on the higher level presumes clear-headedness and foresight, not merely perseverance, but a fulfillment of

the intellectual requirements of the job or the title that one carries. Because of this stipulation, the traits which mean integrity in one job may not always lead to a high level of integrity in another position. For example, a very able bank clerk was promised rapid advancement because he was a college graduate and had been an honor student all the way through. However, he decided to shift and try himself out in the department store field. The employer at the department store had every reason to believe that this young fellow would be a success, but he stuck to his job with great difficulty and after two years was finally asked to leave. The personnel executive in charge told him that he would not satisfy their standards for an advanced position. Earlier, they had tried him out as a floor-walker, as a department buyer, and even as a manager of a department, but he did not successfully cover the responsibilities assigned to him. He could not think or act independently, and in spite of his willingness to work he lacked the spark or initiative so important in purchasing and in managing others.

When this man was interviewed later with reference to a different position, he was asked about his reactions to his former job. He was still keenly alert and very willing to do hard work at that time, he said, but the department store job required so much standing that his already troublesome veins made him seem tired and irritable by the end of the day. Also, he felt that the store managers had not lived up to their commitments regarding hours of work and speed of promotion. They had not given him a clear enough outline of his responsibilities, and he did not like his immediate supervisor. There was obviously an unfortunate maladjustment in regard to physical requirements and agreements as to what could be expected. In a subsequent job, this man proved very successful since he could sit down while working, and use his high grade intellectual ability.

A high sense of integrity also implies that a man should not undertake work which is not at his own level of ability, or for which he has not had good training and experience. The very fact that a man starts a course in college or accepts a job which is offered to him is a commitment that he is assuming that responsibility. Many positions are accepted with a vague hope that "perhaps everything will come out well, perhaps it won't, who cares?" During a scarcity of workers, for example, stenographers hire themselves out as experts when they cannot even pretend to be efficient at shorthand dictation. An "expert mechanic" may refer to a man who has merely learned how to run one machine. In one large factory when the job market was wide open, most of the "personnel men" had been white-collar workers in sales positions or various office jobs. They knew nothing about personnel work, and misrepresented themselves completely.

Similarly, if students insist on taking college courses which are too advanced, and which they have been warned against, they are committing themselves to many extra hours of hard work. When they begin to falter, and their attempts indicate that they cannot stay abreast of the rest of the class, a sense of personal integrity would require that they resign from the class. And yet they delude themselves into thinking that they will squeeze by in the end. Their defects lead to warnings, to failed examinations, and failures often make one's aspirations and ambitions seem too unattainable, and discourage many who had excellent opportunities.

Many minor executives pretend to be loyal to a firm but actually fail because of assuming many duties and not fulfilling them. A committee is formed to accomplish something, but the chairman does not call the committee into action; the responsibility of getting in touch with a disagreeable client is avoided; a new co-operative venture with another de-

partment is promised and carried out only in part. Innumerable job responsibilities are in this way taken over and then neglected.

Integrity, in summary, means **keeping on the job** in every way, at least as you understand the functions of your job. It is a sense of honesty and self-trust which reveals itself in myriad ways in the business world.

Co-operation

Co-operative activity touches equally both character and personality. It implies a positive trait of character which does not fall under the jurisdiction of taboos, restrictions and punishments. You can punish a man for lying and stealing, but he doesn't have to bolt his door against the arm of the law if he refuses to give his bit to a charity campaign. Co-operation should be based on a sense of good will and willingness to help the other fellow, but it often transcends the original spirit of giving your partner a helping hand and becomes a requirement of duty. If co-operation is the most efficient means to a desired end, then co-operation becomes imperative.

In recent years we have heard a great deal about the teamwork necessary in a flying fortress, particularly among pilot, navigator and bombardier. We have heard how each man has specific responsibilities, and how each man co-ordinates his task to keep in tune with the proper operation of the ship. Football and basketball also offer numerous instances of required joint operation. Good blocking in football and good passwork in basketball is recognized by most modern coaches to be more important than a skillful broken field runner or a hawkeye near the back board.

The change from a military or authoritarian form of business organization to the functional form in which each administrator must work in harmony with every other administrator has already been discussed. Under this system, a sense of co-

operation is more essential than before, and according to Hepner who wrote on "Changing Conditions of Modern Industry", business is now requiring it. Yesterday's "lone wolf" is no longer wanted or appreciated. Just as in the fighter squadron he gets away from the others and does unconventional things which endangers himself and others, in business he is unpredictable and he frequently gets the company into trouble. He ignores the group welfare and works for his own advance.

Why are some men unco-operative, easily letting their emotions out in envy and jealousy? The answer is best represented by the studies of anthropologist Margaret Mead and her colleagues who analyzed the culture of many societies in the southern Pacific Islands. In general it is a question of tradition and emphasizes the early training of young children. In one society she found everybody happy only when all were together on the same social plain. No one could be dominant and remain satisfied for there were too many others to remind him of his selfishness. In another society everyone kept struggling to outwit his neighbor. Each person was in a tension of competitiveness, not trusting and not trusted by his best friends.

The American culture pattern is at neither extreme, except that the floor pacers in the stock market do manage to reach the competitive peak we just mentioned, every so often. On Wall Street suggestions are deliberately thrown out to trap one's rivals, and many false starts and feints are made. In other business fields as well we find these cunning people. Yet we have had the other extreme as represented by the efforts at socialistic communities. When Swedish immigrants founded the Bishop Hill Colony in Illinois, nearly a hundred years ago, no one was to have advantage and no one was to benefit unduly from the work of others.

Frustration is the precursor of aggressiveness, say Dollard and Doob. If people are brought up to be reasonably active

and then are restricted by too many rules or a domineering manager, they can easily fall into ways that are aggressively unco-operative. A particularly illustrative example is yesterday's nightmare: gas rationing. Men who were good citizens and had been used to a great deal of freedom were rather sharply restricted in their use of gasoline. Feeling blocked and inhibited they made all sorts of excuses and ended in defying the regulation. Black markets are the result of what some consider extensive regulation, and thrive on even one avenue of escape.

In some theaters of business, on the other hand, co-operation is the rule — not only within organizations, but between them. This can be seen in Rotary Clubs, in a community's Chamber of Commerce, and in national and regional associations formed to maintain good ethical standards and to promote welfare among all men. The amount of this co-operative undertaking may almost be taken as one measure of the advancement of a city.

Loyalty is the co-operative impulse most commonly recognized by business as a whole. A man may be sullen and introverted, but if he is known to stand by his firm his character is "as sound as a dollar." Disloyalty is deceitful, so they say, since the mere connection with the organization presumes its support. "My country, right or wrong!" and "My firm, right or wrong!" have been rather common assumptions in our industries, even though they are not ethically justifiable.

This is a rather disquieting situation for American youth. One boy of outstanding character came back to his college and reported that he was quitting his job merely because he was being constantly asked to support things which he couldn't personally sanction. Another graduate fumed: "Either you ought not to find jobs in business for us at all, or you ought to bring us up in college to fit into their patterns of conduct!"

He lamented that each college man has to forget his high ideals. The dilemma is obvious, and apparently little can be done about it in the case of the young beginner. Frequently he doesn't find out many of the unethical practices until he has worked for several months, and then if he leaves the firm suddenly, he may be spoken of as a job jumper, and have difficulty getting good references or good recommendations.

We believe that in many communities a gradual change is taking place, and for the better. Higher standards of advertising and more ethical selling practices are being developed. If an organization is too openly immoral, it cannot help but suffer in the long run. Its employees are offended and either quit for other jobs or become antagonistic and disloyal. An organization must reckon with the fact that youth has been taught to be loyal to ideals more emphatically than to cults, groups and other aggregations. This, says Royce, is the higher loyalty, and if a company can grow to have a genuine social conscience, it can best secure and cement the loyalty of its employees.

Many companies find it very advantageous to enlist openly the support of the worker in combating malpractice and cheating another company or patron. If the employee is made to feel that he, himself, is an important safeguard against unethical practices, it makes a great deal of difference in his morale, and he is apt to cooperate more sincerely, knowing that he is working for a legitimate company. If the employees are kept in the dark, ignorance leads to suspicion and rumor, which in turn are the parents of disloyalty.

Idealism

The highest level of character development is conduct on the basis of ideals. An ideal is more than an idea or a habit, it implies an emotional attitude in connection with conduct, usually dating back to adolescence or childhood. The ideal of

honesty means that, regardless of personal advantage or any habit, we earnestly strive to work in line with truth and accuracy in everything that we do. Ideals are a powerful combination of sentiment and energy with which to carry the sentiment out. A person who is content to pay lip service to ideals is nothing more than a false sentimentalist.

Ideals are derived from the great virtues of our civilization. They are necessary to reduce our egoistic striving and natural selfishness. What laws and religious codes we have were largely devised to support these ideals. Two countries can be in complete accord only when their ideals are compatible. The Nazi idealism, on the other hand, with its inclusion of ruthless domination of subservient nations (and their definition of subservient was rather all-inclusive) was incompatible with either the British or the American ideology.

What is the place of idealism in our modern industrial civilization? This is of course a leading question and its answer depends on the occupational field one is concerned with, and the community or business for whom he works. In all the professions, where the primary object is service to society, there can be no question of the place of ideals. They were originally formed, in fact, because a group of men with similar ideals and standards got together to advance the social utility of their work. The Hippocratic Oath of medicine, to which almost every medical school graduate must swear fealty, is a declaration of medical idealism, requiring care, self sacrifice, and complete attention to the health needs of the individual. Other professions have similar codes, but they are not binding enough to do away with malpractice completely. Perhaps the main difference between modern political science in a city government and the older type of city politics is a matter of idealism. Are the taxes used for the upkeep and growth of

the city, or largely to benefit the machine in power in conjunction with every conceivable device to cover up gross mismanagement? In the not too dim, dark past, the mayor who did not pick up his share of graft on the side was considered stupid because there were so many opportunities, and a well established traditions to white-wash him.

There is still room for a vast increase in idealistic practice in our large commercial and industrial organizations. Not only would an improvement up-grade the individuals concerned, it would add immeasurably to the standards of the community. If one large business is misleading in its want ads and display ads, other businesses are too strongly tempted to do the same. A manager who is known to keep his word and to co-operate faithfully in connection with labor representatives is a rare person in most communities.

If management is at all desirous of achieving a higher level of character, many things should at least be considered to benefit the worker, since ideals of altruism and fair play require them. These considerations should include the following:

Promotion according to merit.

Reward for unusual accomplishment, making sure that the recipient is the deserving one.

Vacations, health and social insurance.

Unemployment compensation so far as possible.

Attempts to train younger members of the firm, and to provide avenues for discussion of organization policies.

A personnel system which handles complaints sympathetically.

Profit sharing in unusual times, or some method of sharing excess earnings to provide for a depression.

Provisions for health, sanitation, and safety in the plant if not in the entire community.

Attitudes of sympathy and good will for those in distress.

American industrial leaders are progressively taking over these measures as ideals in their own organizations, and they are not suffering because of it. They constitute the best bulwark against foreign forms of political control and in favor of democracy. They constitute democracy in action.

A MAN'S character is concerned with his actual conduct in the light of moral codes and the sanctions of civilization. There are other kinds of behaviour and attitudes which are not really requirements of conscience, but which make a person a better human being, more socially acceptable, and a more forceful, wholesome influence. If a person has a favorable, stimulating effect on others, we usually say he has a good personality. However, there is no clear cut division line between personality and character. To be selfish is a character blemish, but it is also a personality flaw since it leads others to withdraw from and distrust a man.

"That office had all the monotony of a waiting room until the new secretary arrived," or "Every time you step into that store you feel cheerfully buoyed," or "He makes you feel at ease because of his composure" are all statements which are constantly being made, and they refer primarily to an effective personality.

But just what is meant by "personality"? Is there any agreement on the term? In response to an enquiry on this subject an interesting result was that psychologists disagree more among themselves than do the so-called laymen. A man's personality is not "everything about him," as some psychologists have claimed. It is that part of him which stimulates others. It does not refer to how well he sleeps, or how much he eats, or how much he goes to church unless one of these activities directly affects the attitudes of other people. But even the man on the street does not agree very closely with his neighbours because a man's personality includes an assortment of traits which are not always compatible or easily described. In other words, it has several dimensions which should be taken up separately and thoroughly for more accurate analysis. Three main dimensions are most frequently discussed: the attractiveness of a person, his dynamic independent energy and initiative, and his poise or emotional stability. We will consider them in order.

Attractiveness

The first dimension and perhaps the most commonly considered cluster of traits can be referred to as attractiveness. It is discussed first because it originates furthest back in childhood and because it is most easily reacted to by everyone. A baby is a "good baby" if it is responsive and laughs more than it cries, and this is not because of any moral attributes. A salesman has a "good sales personality" at a glance if he has reasonably gracious, relaxed gestures and smiles easily. This is the total outcome of the impression of the first meeting. It is that initial judgment: "I like him" or "She's a good sort." In general, we like to be around such people because they represent satisfactions in living and they draw us to them. They may offer us respite from the frequent tensions of social com-

munication, or they bring a sparkle and excitement which pleases.

But the actual analysis of the trait of attractiveness leads into problems. Unfortunately it is a trait which has no definite entity. It cannot even be called a precise organization of attitudes and behaviours. The same person can be attractive in one group of people and thoroughly unattractive in another, even when his conduct is the same. Frequently a speaker is very well liked by one man and found intolerably boring or ineffective by another.

The attractiveness of a man is a judgment-relationship between him and each other person, and this relationship will vary greatly according to his age, his cultural level, his manner and the total effect on other people. To the educated man, Gene Tunney represented an attractive type of person who was a good boxer, since he talked about G. B. Shaw and even Shakespeare at times, and took pride in his parlor manners. The average fight fan, however, took Jack Demsey for his hero because he was a naturally colorful pugilist and because his spirit was not cowed by defeat.

Personality traits must fit the situation: the kind of job and the type of people involved. A salesman or receptionist can benefit by effervescence, light gestures and glamour whereas too much emphasis along these lines would be treated with suspicion in a bank teller or an office manager. For most jobs there are certain universal attitudes and manners which are beneficial since they appeal to all. Even though there are locality differences between the north and the south, the east and the west, or discrepancies in age or education, certain marks of friendliness and poise will always be of significant importance in social contact. We carefully search for these marks in those we meet. Mainly they are simple gestures, or slightly emotional reactions which put us at ease and invite

a more informal acquaintance. Most of these qualities can be found in or derived from the following enumerations.

(1) A relaxed attitude. We meet so many rigid and unpleasant people, that when we do communicate with a person whose voice and whose facial muscles are relaxed, we feel at once "off guard" and eager to cooperate.

(2) A smile, or ready greeting, is a universal trade mark of desire for contact. Biologically, the origin of the smile is actually quite unknown. It is often thought of as an abbreviated laugh which brings a rapid reduction of our tensions, but it can be much more meaningful. Although it is quite possible that a smile can exhibit egoism, scorn and artificiality, it usually is an alluring invitation for conversation.

(3) Sympathetic conversation. When we understand the background and the motives of another person we can co-ordinate our ideas with his and therefore gain mutual advantage. Asking questions, showing genuine concern for the welfare of your associate is essential to the psycho-osmosis of which some psychologists write. To shift back and forth from your interests to another's is an art of great social advantage.

(4) Vitality and unpredictability are often important in creating an attractive atmosphere. Whether these qualities take the form of glamour, pertness, wit, or imaginatively interesting conversation, the effect would depend on the situation and the types of people involved. Some people do not seem to sparkle until they sing, get on the athletic field, or act in a play. Their talents for creating interest are confined to a narrow range of behaviour. Others have a more cosmopolitan appeal and seem to attract many kinds of people in many different circumstances.

The difference between the ratings of students by professors and by fellow students is often quite striking. In one case a football player was acknowledged to be a good student

and was given a high rating by his professors, but five of his fellow-students rated him well below average. When some of these people were interviewed they responded that this man was a bluff who always put himself to advantage before the professors. He copied material from others instead of using the library himself, he ran down his friends behind their backs, he was arrogantly selfish in many small ways, and tried to take advantage of his athletic status. In summation, he was regarded as a thoroughly undesirable citizen outside the classroom and off the football field. Later on this man lost all of the superficial prestige which had aided him in college, he was judged to be quite unsuccessful, was not promoted at the usual rate, and shifted from job to job almost aimlessly.

Some men deteriorate steadily in their personal appeal to others, for example a college professor who changed his eagerness to teach in a few years time, and showed a proportionate drop in popularity. A member of a faculty of over fifty, he had been formerly rated in the upper half dozen by his students, but after his deterioration he was in the lowest six percent of faculty popularity. Several studies of students' ratings of professors have dealt with annoyances or mannerisms which students dislike in their professors. Among other undesirable qualities were long hesitations in speech, too much didactic lecturing, tension in speech and attitude, and impatience with the student. Above all, students object to the sarcastic professor. For the most part, these objections coincide with the items discussed above: freedom from tension and egotism. Too much talk is often a sign of fear that one is slipping. A man feels that he bolsters himself by stealing the stage from an other. We have all heard people remark about the salesman who talked himself out of the sale. He did not consider the viewpoint of his customer so much as his own desire for expression.

The only effective method of measuring attractiveness is through the technique of massed ratings. No single rating of a person has any reliability, but when five or more opinions are collected from associates, the averaged picture has a good deal of reliability. It is more meaningful, however, to know the spread of the ratings than merely the average, as we can judge from the sample ratings below. The average is about the same, but the ratings for individual A suggest a more colorful person either one way or the other, whereas individual B is relatively colorless. In general, the B type of person is not as successful because he is not as expressive. Individual A is likely to irritate some people but gets on quite well with the majority.

Ratings on /	xx	/	xxx	/	xx	/	xx	/	x	/
"A"	Very attrac.			Average			Unattrac.			
Ratings on /		/	xx	/	xxxxxxx	/	x	/		/
"B"	Very attrac.			Average			Unattrac.			

Should the rater know the ratee very well? This is a question which has bothered psychologists considerably. Probably the answer should be that various degrees of knowledge are desirable. One's closest friends almost invariably over-rate a person, but a bare associate has to judge too completely on the basis of superficial indications.

The "outer layers" of personality, including neatness and manners, are very important in an occupation like selling where a person makes many cursory, short-lived contacts with strangers. In considering a public contact man or woman the wise employer realizes that it is essential to find a person who can make a good initial impression. A man in a research or statistical office may need to pay less attention to first im-

pressions, but must have the merits of co-operativeness and fair play and inject a little humor into life with his associates. As lasting relationships become more evident, character traits generally take precedence over personality traits in importance.

In any analysis of attractiveness, a still broader approach is a concern with the gesture, by which we mean any tentative or incomplete bodily act or posture which reveals the inner attitude of the person and predicts his future intent. Our gestures include not only arm movements, but blushing, nose twitches, normal or neurotic smiling, faltering walk or speech, tremors of fear, stiffening of the body in anger and all other types of incomplete activity. By its very nature, according to Mead in his "Mind and Society," a gesture is an inhibited act which is started by one impulse of the mind but is blocked by another, often unconscious, impulse. Most of us are not aware of many of our characteristic gestures, and we cannot concentrate on their improvement or abolition until we become conscious of them. Merely to be informed of a slouchy attitude or an unpleasant grimace may lead to rapid remedy, but how are we to learn about these subtle and almost intangible aspects of our personality? One man had for many years twitched his nose slightly whenever he smiled. His best friends did not inform him of this nervous gesture because it was associated too intimately with the man as they knew him. His bare associates, on the other hand, did not dare tell him of his unfortunate and disturbing mannerism. Often a family can become accustomed to their child's personality quirks because they develop so gradually and imperceptibly, or because they are regarded as unimportant in comparison with the child's virtues. These unsocial gestures are superficial in the eyes of a very good friend, but they may be serious handicaps in the business or professional world. A doctor who acts smug or

uncommunicative is likely to have difficulty in retaining his patients.

In some fields a good deal has already been done to improve gestures. William Charters in his "How to Sell at Retail" suggested, many years ago, various ways of improving social manners in a department store. He also extended his analysis into secretarial work, pharmacy, and other occupational areas. Usually a shrewd analyst can single out several types of behaviour in a person which could be improved with a little practice and care. Often it is advisable to look casually but critically at oneself in the mirror, and have a member of the family periodically give his opinion regarding improvements. Frequently the chief difficulty is excess tension in the body, leading a person to be impatient or irritated.

Positive action is always more beneficial than concentrating on what not to do. In the case of the smile, for example, one can practice relaxing his face and acting pleased in a simple child-like fashion. An over-strained smile or an inhibited smile which reeks of sophistication is likely to be artificial and contain unpleasant elements. Practice in relaxation is encouraged by several medical men, not merely for purposes of becoming more attractive, but to avoid neurotic inclinations in the body and mind. According to Fink in his "Release From Nervous Tension," one must concentrate for more than ten weeks before one can expect great improvement in voluntary relaxation at all times. One must learn to talk to his muscles and get immediate response, from the finger tips inward to the more complex inner ring of tension systems.

To some extent one may try several "stunts" himself to see the results. Emerson said that a man who is despondent should take a bath and change his clothes. Here is one clue to self improvement. Through fresh clothing and neatness we may build up confidence in our acceptability to others which

in turn is reflected in our gestural behaviour. Another stunt is to straighten up and look directly at people, concentrate on your bearing. Also helpful, especially if you have been accused of being an introvert, is learning "small talk". Experiments have shown that people who were felt to be "isolated" and were not well liked in their group could bring up their prestige and confidence considerably by "playing the role" of an easy and fluent talker. A pleasing behaviour front can be practiced as can any skill, but it should be built on genuine good will and concern for the interests of others.

The Example of a Merchandising Manager of a Large Department Store

For many years the department stores have been concerned with the problem of choosing the correct assortment of functions for the manager of a large department. Such a man will have twenty to fifty or even more people under him, and he is responsible for buying the department's new merchandise, as well as for the success of the department. He may be said to have at least four major functions, each of which requires ability and important personality qualifications and involves close harmony with other people.

1) Purchasing new merchandise—this implies in conjunction with a natural alertness, to style changes, travel, contacts, correspondence, shrewd bargaining, and a knack of anticipating the ups and downs of the market. He also should be alert to satisfy the policies of the directors of the store.

2) Managing the details of a department. Allocation of responsibility, handling many details of stock, a sense of timing as to when to withdraw or introduce merchandise, a feel for the most inviting display of new material and the natural qualities of orderliness and tact.

- 3) Training new employees in their various duties, or re-training older people. This may be accomplished largely by assistant managers whose sole function is to teach, advise, and supervise. However, the selection and encouragement of assistants as well as determining the policies of training must ultimately fall to the manager.
- 4) Promotion of morale or an enthusiastic group spirit in all the workers which is genuine enough to infect the customers. Fairness and co-operation are absolutely required in this connection.

In any attempt at evaluation, the last function was most frequently glossed over in the past because it was difficult to measure. In recent years, however, many stores have measured the morale of departments quite accurately through merit ratings and questions distributed by the central personnel office which were anonymously answered by all the department workers. Also, by paying close attention to the profitability of sales, the director of a store can evaluate the morale of each department quite effectively.

One can object that one man could not efficiently handle all these various and sundry functions, that such an ideal, well-balanced individual is too rare to be expected. However, if a person is well educated and has a broad background of training and experience, he may be capable of success in all these areas.

The following discovery was made in a large department store. The personnel manager, in appraisal of ten large departments, had rated seven managers as being not fully satisfactory. They were not complete failures but they fell below superior standards. All executives were systematically given intelligence tests of several hours duration so that their ability scope was thoroughly canvassed, and a good many interesting reactions were secured. The results were significant. Of the seven men previously judged unsatisfactory, four were found

to be definitely intellectually superior, with I.Q.'s of 130 or better.

What was the reason for this apparent contradiction? It was important to realize that fundamental ability alone did not seem to be the difficulty. The chief problems were finally judged to be personality defects or limitations, and a crude appraisal scale catalogued each man as follows:

W had one major interest: publicity. He was convinced that if he could display his material attractively it would sell, and this was the primary function of the store, was it not? He was consequently too hasty in purchasing, very careless about training new people under him, and was regarded by his subordinates as scatterbrained and selfish, even though he was likeable.

X was a brilliant but timid man who allegedly tried to avoid facing people. He did not talk frankly to those in his department, and he could not be contacted often—even by the personnel director himself. His "timing" was off on changes of displays, partly because of his general introvert bent which kept him out of touch with things as well as people.

Y seemed to enjoy playing the dictator. He was considered too severe by the self-respecting people underneath him, and he tried to use underhanded methods in connection with his fellow managers in other departments.

Z was cursed by complacency, the type of complacency which often has its roots in over-eating. He was good-natured, always seemed to be within ear-shot of his subordinates, but he did not hold the respect of his department, and was not up to date in buying new material. He was insecure and afraid to initiate departmental programs.

Drive and Initiative

The rarest quality to be found among young workers in

industry is that of initiative, largely because it is so often discouraged. The worker must follow instructions set by others, he is watched and blamed for irregularities, he may be criticized for minor deviations from "standard practice", and he is expected to follow precedence in the matter of hours and the method he uses in his work.

The term "drive" has been widely accepted by psychologists because it stands for conscious intent to work as well as many unconscious urges. We are only dimly aware of such inhibiting factors as an early scolding we may have received, a year of failure under a teacher or employer, a parental reproach, or the warning of a friend that the "boss" is difficult to satisfy. All these operate as dampening influences, the oldest and most unconscious of which even reduces the strength and continuity of our effort.

In the engineering field, one young executive announced that there was no such thing as too many trained engineers. "There are not too many well trained men in the field, there are merely too many undeveloped jobs held down by men who have not the initiative to develop them", he insisted. This belief can be readily substantiated, for all too frequently an engineering graduate waits for his employer to point the way for change. He cannot seem to get the notion that he must himself look for short-cuts, for changes in the routing of material, even for ways to eliminate his own job.

Initiative is a personality quality which might be expressed as the capacity to overcome inertia. A person with initiative is a self-starter. It is often spoken of as an inborn trait because it seems to date back to the early life history of the person. Also, it is a quality that is hard to teach and hard to learn. The schools usually do not consciously develop initiative, they are more interested in teaching conformity. However, as far as the

development of initiative is concerned, there seem to be three basic directives.

(1) It may have been consciously developed by parents and teachers in the earliest years of the child by encouraging original effort. The modern progressive school is supposed to do just this. Many homes are excellent training grounds for initiative, as are many others for idleness. A scolded child, a blocked, fearful child does not grow up to have initiative.

(2) Some young people learn from the early taunts and battles of life that their only way towards success is through struggle and perspicacity. The remarkable little volume "What Makes Sammy Run" is a biographical account of such an individual who was brought up in a competitive, New York neighborhood where different religious and racial groups were in constant conflict. His feeling that everybody was out to beat a Jew made him particularly shrewd and energetic.

(3) Another reason for a somewhat more retarded arousal of energy may be a sudden awakening to the importance of hard work in normal everyday activities which had been formerly taken for granted. Many students now in college, after three or four years in the service, are now operating on a much higher intellectual level than they had been in pre-war times. A new ardor and enterprise developed from their grim war experiences, or merely from having such an excess of free time prompting them to think over and lament previous weaknesses. They came back to "make good the family name" or for some similar motive. F. D. Roosevelt's fighting spirit took him far beyond the level of intellectual activity he maintained before his illness.

Rarely does high motivation and original behavior develop suddenly. It must be nurtured through planning and constant, zealous endeavor. But there still remains the danger of a person setting his goal too high and announcing it public-

ly. In one case, a college student who had less than a "C" average stated that he was never going to get less than an "A" in any of his courses. When he realized his goal was impossible, the result was a serious emotional upset later ending in a psychosis. The conscientious planner should be satisfied to raise himself one step at a time, he should be realistic and reasonable.

Colleges are often blamed for killing initiative. Students seem to succeed more easily by imitating their professors and by sitting through lectures passively and handing in echoes of the text book and the professor's pet ideas for final examinations. The most evident justification for this accusation is in the major state universities where nearly all the classes are very large and there is little opportunity for subjective essays and originality. Nearly all the examinations must necessarily be of the short answer, checking type. On the other hand there are college classes which greatly stimulate the capacity to think with originality. Only the very unusual individual will learn by himself to be original, or has the drive to succeed without some imitation of others.

Drive is inevitably fettered to habit. In fact, we can scarcely do anything which is not in the direct path of our former habits. The psychologists are using the term "functional autonomy" to describe this principle that outside incentives are really not as important as our internal mechanisms which are operating largely unconsciously and according to previously learned pathways. It helps very little for any of us to say "now I will be original!". Many experiments have shown that acts or ideas which follow such declarations are quite stereotyped.

Some men act out substitutes for initiative. One of these is restless physical activity: moving about, trying out new jobs and new people in their search for change. Extensive reading,

or attendance at many clubs may seem to take the place of initiative. The control of the conversation in a small group, or the mastery of a larger group through lecturing may satisfy one's aspiration to show initiative by providing the substitute of domination.

Actually, the more original thinkers are more likely to live alone and away from the community much of the time. They need time and room to think, time for the incubation of ideas, time for the sorting out of alternatives and following the course of each to the end. Responsible people whose occupations demand original thinking should try to separate themselves from the orthodox and from the routine. They should lose contact with other men and other ideas so that they won't have to yield to simple suggestions.

Executives generally differentiate themselves from administrators by their capacity to withdraw and work out future plans. Snap judgments are not wanted so much as valid judgments, soundly composed and practical. Research men must realize that every judgment is tentative, that tests made must be made many times and the results considered ad infinitum before any principles can be established.

Men who have exhibited a good deal of initiative in early years often seem to "burn out" by the time they are fifty, or well before this time. In art and science as well as in athletics, there seems to be a premium on youth as far as achievement is concerned. In law, finance, and politics older people are most likely to be in prominent positions and this is mainly because prestige due to former accomplishments is important therein. Just why there is a tendency to slow down on work with approaching senescence is not very clear. Tests do not show an actual slow down of basic ability to learn so much as they suggest inhibitions or blocks. "Why should I work so hard?" becomes a common attitude, or the person is apprehensive

that he will be criticised by some other expert in the field. Now and then we find an illustration of an unusually able person who keeps on producing important scientific data or good literature well beyond the age of sixty — a Thomas Mann, a George Bernard Shaw, or an Edward Thorndike — enough of them to prove that there is no necessary age limit for initiative.

In childhood, similarly, one cannot find pin-point illumination of the origin of initiative. Even the pre-kindergarten level offers many opportunities for productive thinking from the child's point of view. A child tries out a lie, tries to possess some other child's toy, or tries running away from home. These are signs of a free spirit which may be developed into more useful channels or discouraged completely at an early age.

During adolescence and in the twenties, initiative may be greatly expanded by the direct conscious effort of parents and teachers or the purposefulness of the individual himself. The following principles may be of special value:

- (1) Be sure that you are properly rested and feeling fresh before you undertake your most important tasks. Curiosity and experimentation is never likely to flow from a tired person. There must be a reserve of energy.
- (2) "Take time to think." When important problems arise — even when you are faced with pressing social decisions — habitually postpone your final decision until you have canvassed the possibility of various alternatives.
- (3) Practice an unusual bit of behaviour in direct line with the particular kind of initiative you want to develop. If you are not a good conversationalist take occasion to approach new and different types of people and start a flow of conversation — most easily

done by becoming a good listener and interjecting intelligent comments at apropos moments. If you are a scientist try out different arrangements of material, different heat treatments, original proofs or other controls. If you wish to develop initiative in sales campaigning or advertising try out different appeals or new publicity media. However, for any experiment one should watch the results closely and judge their value accurately. One insurance salesman thought out a new method of presenting himself to a prospective customer and worked it out very carefully in his mind. It was based on the psychological principle that each of us likes to do most of the talking and to feel that we have made our own decisions. It was a questioning technique that took the place of the previously used arguing technique. With an average number of calls, he found that he increased his sales success by fifty percent.

Where will initiative be of most value? The answer is that there are no limitations to its usefulness. Every profession and all forms of business leadership call for it. It is not so difficult, however, to indicate where initiative is of little value: purely routine occupations, those dead-end jobs where neither education, intelligence, nor extra energy have any value. The outward manifestations of initiative are usually enthusiasm, ambition, and willingness to do the extra thing, as well as paying constant, strict attention to the possibilities of novelty. Quite often, these opportunities are hidden behind something which looks dull and routine. One of the most original educational administrators I have known was conspicuous for his willingness to take on unwanted jobs. Through the administration of these jobs he learned more about management, what

could be eliminated and what expanded for the benefit of the college he served.

Self-Control

The most complex and difficult traits of personality fall under the heading of self-control. At an early stage of the child's development we speak of "controlling your temper," and this admonishing remains important throughout life. Many adolescents and adults still lose their tempers. They merely change the reason for loss of temper and the symptoms of overt anger are modified. Instead of screaming because a toy is taken away, an older person may use an indiscreet epithet in talking back to an associate, or he may write a letter to express his rage and mail it before he realizes the consequences of his impetuosity.

A person with fine emotional control has bearing and self-confidence when others may be embarrassed and distraught. He does not easily anger, nor frighten, nor show disgust. In fact, he should not exhibit elation without some restraint. Much of our early life is spent striving towards this ideal of emotional composure. It doesn't seem too long before the child realizes that crying and temper tantrums are not always successful and must be reduced if not eliminated. The fact that many people weep at the movies and do not in real life suggests that in ordinary social situations we have learned to check our emotions almost at their conception. Only when others are not looking at us, or when we are caught off guard do we indulge freely. It is an important part of maturation to realize that control of the emotions is a necessity if we want to be socially acceptable.

Some people control their emotions by counting cautiously to ten before they reply to an irritating person, or they consciously relax the muscles of the body with especial attention to the neck and shoulders. Breathing evenly and deeply is

another device which allows a person to talk back smoothly and without any show of agitation. A low voice pitch usually assures one of more control than a high, strident voice. Some people find it best to pretend immediate agreement with an irritated person, or to be very humble in an annoying situation thereby disarming others around him.

A second level of emotional control, more positive than merely checking a rising emotion, is the acquisition of good manners. As one psychologist put it, "Good manners are the grease which lubricates our social discourse." Deference to women, to the aged, allowing others to talk their share of the time, politeness in manner of speech — all these signs are indications of a person brought up to be considerate of others. These conventional ways of being considerate in turn suggest that we have overcome a natural desire to parade the ego and a tendency to be selfish at the expense of others.

Finally, beyond this primary level of manners, there is a control of temperament which seems to be largely dependent on early fostered traits in the family. Optimism, enthusiasm for ideals, belief in the good will of others, cooperativeness, loyalty to friends who need your help, or to principles which are easily neglected: these tendencies require more than good manners, they must be gradually constructed as techniques in society. These types of behaviour go farther than poise, they are active rather than passive. They imply an understanding of the relation of the self to the others around him. They suggest a community of selves in a larger, well adjusted social group.

These more advanced traits of the social individual are in great demand whenever several people have to get along together. They are particularly stressed by Hepner in "Human Relations in Changing Industry" as essential for committee activities, and in those functional occupations in a large indus-

try where many men are on the same level but must co-operate for general effectiveness. The cost-accountant, the purchasing agent, the director of transportation, the personnel manager, and the sales manager all may have interlocking interests which require effective communication and the mutual solution of all problems.

Psychologists agree that the individual with those personality traits that make him work happily and harmoniously with others has a long background of pleasant social relations. He has usually been brought up in a happy family with relatively few frictions between parents and children. He has been well disciplined, not severely but consistently, and without close supervision from the outside.

Several industrial organizations are now watching for any indications of tension and family anxiety in their prospective junior executives. They have found that an unhappy man at home makes a tense, thwarted man in the office or shop. In a few cases a man who is a near-neurotic, on the borderline, has responded to a timely suggestion or two. Is he getting enough sleep? Is he drinking too much coffee or smoking excessively? Does he leave an "area of decision" to his wife with regard to housework and the family budget? Does he have some freedom in the evenings to attend men's gatherings just as his wife may attend afternoon women's groups? These may seem like minor points but their settlement may make or break a man. A cross-fire of angry words between parents cannot help but lead to tension in the children, and of course anger is usually self-feeding, increasing in frequency and proportion like a rolling snowball.

An interesting incident took place in the family background of a college student as discovered by the psychiatrist who was attempting to deal with his marked anxieties and inability to concentrate. It was easy to see that the difficulty

was caused by friction in the home. The boy was regularly scolded by his father, and as surely protected by the irrational promises of his mother. He realized that both of them were insincere and thoughtless, and he could scarcely hope to find the solution to any of his problems in such an atmosphere. The father, an insurance broker, stayed at home most of the day brooding and blaming others and the condition of business in general for his bad luck. The psychiatrist, in two conferences with the parents, strongly advised the father to get out of the house during the daytime. He took the suggestion well, went to work, immediately increased his business, and allowed his wife and son much more freedom. As for the college boy, there was an apparent change in him too. There seems to be a good chance that he will make not only a reputable student but also a more wholesome worker in business after graduation.

The Rebuilding of Personality

The family background is an extremely important influence in the moulding of personality as has been indicated, but the family is not powerful enough to chisel the personality of their off-spring out of solid granite, forever impervious to wind, rain and sun. A person fortunately is never completely unmalleable; one can develop greatly as the result of attention to his weaknesses. On the contrary there are certain steps which are implicit in the rebuilding of personality and they are of fundamental importance.

Firstly, try honestly to understand the assets and liabilities of your personality. If you are hasty and brusque in replying to others, recognize it. If you are easily flustered, try to classify your nervousness. The more accurately you can define your status, the more likely you are to improve.

Secondly, do not hesitate to imitate those whom you regard as stimulating and successful. Learn to play the role of

a happy, well adjusted man and gradually you will tend to become one. Practice specific behaviourgrams (a term devised by a college personnel worker to describe the rather small bits of behaviour such as smiling graciously, listening intently, etc., which are usually part of a larger cluster of traits referred to generally as goodness of personality). Being specific like this makes us more able to mark and judge our progress.

Thirdly, do not hesitate to get help in evaluating your progress. It is often possible to realize your own success by observing the attitude of others toward you, but at other times you may need the help of an ingenious adviser. Occasionally students have remarked to a personnel counsellor: "I don't seem to be getting along with people. They ignore or dislike me, and I don't know why." In such cases, one or more careful interviews may help the student see more clearly certain defects in his social behaviour.

Some times it is advantageous to look forward to situations which may cause the loss of personality equanimity. If one is forewarned of probable irritation and friction with others over some issue, it may help him to brace himself for difficulties. Here are some common flaws in people whom we are sure to have seen or known:

(1) The selfish, inefficient worker with whom we are asked to co-operate. He has been brought up as a protected or only child, his rights have always been unduly recognized. He may get useful information and ideas from us, incorporate them in his work, and claim them as his own. There may be partial solutions to the problem which this type of man represents, but the main point for a person associated with him to remember is to keep his self-respect.

(2) Men or women who become irritable whenever they are tired. Often these people are in important

positions since they have grown up in an office or a community being susceptible to the normal frequency of promotion. A well balanced personality should try to appreciate the good points of such individuals. One must discount their irascibility and make an effort to be tolerant.

(3) Those with sharp prejudices against people of a different religious creed, race, or basic attitudes. It is hard for many northerners to live peacefully with those from the deep south who have characteristic attitudes toward the negro.

(4) The stupidity or serious cultural deficiency of a person who is in an important position. For example, a specialist may be required to work under a department head who may be an expert in a certain field but has a very narrow cultural background. Sometimes such a narrowly educated person will "take it out" on a person of greater breadth because he may enjoy general reading and recreation which the older man feels are time wasting.

(5) For an older man, one of the most difficult things to overcome is to have a young person promoted over him. Frequently such able young individuals are arrogant and appear to degrade the older man. Older men have to accustom themselves to cockiness and bursts of crude initiative, and often in the face of long established traditions which have gathered sentiment. They must try to exercise humility and be glad to serve on almost any terms. If such a person changes his attitude from "he can't do that to me" to "what can I do now to fit into the new picture," he is likely to be happy as well as serve his institution more effectively.

It is indeed greatly beneficial to find the good points of a colleague. There are too many cheap critics who take delight in picking flaws in others and throw away the sweet with the bitter. On the positive side there is the illustration of Zadig, taken from an early oriental tale, retold by Voltaire:

"Tho' rich and young, he had learned to moderate his passions; he had nothing in him affected; he despised the ostentation of wisdom, and knew how to pity the weaknesses of mankind. People were astonished at finding that tho' he had much wit, he never exposed, by his raillery, those impertinent and seditious, those rash slanders, those ignorant decisions, those rude jests, and that vain sound of words, which, at Babylon, went by the name of conversation. He had learned, in the first book of Zoroaster, that self-love is a football swelled with the wind, from which tempests proceed whenever it is pierced. . . . He was generous: he was not afraid of obliging the ungrateful. . . . When the chief magi told him, with an insulting haughtiness, that he entertained heretical sentiments, and was an enemy to the state, for believing that the sun turned about its own axis, and that the year had twelve months, he was silent without anger or disdain."

One of the best guides to an effective personality in either business or professional life is to have a motivating, basic attitude, or a philosophy of life. A strong belief in the ideal of service, for example, becomes a balance wheel and no amount of external frustrations can make the personality lose its equilibrium. A philosophic dream of the perfect state, as recounted in Edward Bellamy's inspiring "Looking Backwards," influenced F. D. Roosevelt and thousands of others. This type of philosophy, or an equivalent personal faith, sets a goal

of attainment. It also integrates our actions so that we are consistent in our endeavours.

The Case of Roger — Lawyer

The case of Roger is interesting from the point of view of personality development because it illustrates what a student of moderate ability can do with well developed personality traits. He graduated a little below the average of his class in high school, and had difficulty for two years in college. He seemed to be slow in maturing; but also he had spent too much of his time in outside activities. His interests had included dramatics, debating and student management. In his last year of college he was not only the best platform debater in college but also held the second most important student management position. Above all, he liked people, could handle a committee by bringing their ideas together, without interfering antagonisms.

The credit for Roger's fine traits goes back to his mother who was a woman of rare charm and sweetness. He did not know the meaning of sharp family conflicts, could not understand why people of all faiths, or differing political parties could not get on well together. He was a strong believer in American democracy, and he constantly practiced it. Although he was a Catholic most of his strong friends were Protestants; although a Democrat he was sought after in committees by Republicans because they knew he would co-operate in all good things.

Since boyhood Roger wanted to be a lawyer. For some reason or other studying in law seemed to come "natural to him," to be easier than to men who had better college grades. He graduated during the depression years, and in order to support his mother had to start earning a good living soon, — more than the usual beginner in law. He took on a state civil service job, which incidentally brought him in touch with

state politics and some important personalities. He was a good greeter, and became trusted, so that during the war period he became an attorney for important state bureaus. He is now a junior partner in a large law office with an assured future and superior income. In every sense he is a community leader.

If one were to summarize the case of Roger the item of a well rounded personality would loom large. He was not only a delightful warm personality, a man of superior psychosmosis who took an interest in all the people he met, and could remember their names and other details about them. He had an urgent drive to be first, I would say, a good citizen, but also a first class lawyer. The thought never occurred to him that he could not succeed in these respects. But also, he combined with these traits the final most essential trait of all in the practice of law, — an amazing control of his emotions. Roger could sit through critical discussions where he had been severely ridiculed, and not show emotional upset of any sort. His voice remained calm and reassuring. He tried to be objective, to get the facts as he saw them.

One might say that law, more than other occupations, requires the well rounded personality; however what profession is not greatly improved because of these traits. A minister becomes far more useful if he can enter into the affairs of his community, as a participant in social problems. Doctors and dentists must expect to rub elbows with men whose attitudes they do not like, or whose analyses of patients they oppose. And the crying need for teachers today is for men and women who not only know their subject matter, but can appeal to students, can infect them by example and precept with good behaviour traits, not only morally sound but socially approved.

CHAPTER VIII. FITTING THE MAN AND THE JOB

AN eastern college graduate remarked that it took him twenty-five years to find just what he could do well and enjoy doing. Starting out by selling real estate, later he turned to casualty insurance. In both of these fields he was fairly successful, in fact brought up a family of three children, but he felt thwarted, and was never able to put his entire thought and energy on the jobs. His primary interest has been in books of all kinds, so when an opportunity to assist the head of a library came along he decided to try out this new field of activity. Here he seemed to find himself. Unlike most of the employees he did not watch the clock, but took many new books home to scan, particularly those which were controversial politically, religiously, or morally. His comments on them proved sound, according to the library board, and he was asked to become the associate librarian in charge of all ordering and classifying of new books. During the past ten years in this new field, which he did not enter until he was fifty, he has devised several new systems in the library, and his spirit of inspired service to

the public has raised the work morale of the entire staff.

Psychologists have been trying for several decades to evaluate a man through tests of ability, interest and by a multitude of other personality and character measuring devices. Great progress has been made, to such an extent that any completely doubtful individual may benefit immensely through such steering devices. Some salesmen seem fit for their work because of early environmental influences, others cannot succeed effectively in selling no matter how hard they try. There are deep personality blocks or ineptitudes which interfere. Perhaps their level of ability is too high, or they are too abstract, for certain types of merchandise. Perhaps they are good follow-up men, but poor initial promoters.

Selecting just the right man for an important position is perhaps the most important job of a chief executive. John Shedd, former president of the Marshall Field Company in Chicago, was once chided by a friend for his misunderstanding of some economic problems. He retorted, "You don't have to have brains to run a business; you can always buy brains." But Shedd was an excellent organizer and morale builder. He was well fitted for leadership in a department store, even though he lacked an academic background.

What are the various areas of evaluation important in selecting the right man, or in steering a man in the right direction? In every analysis we should re-emphasize that there is always a great deal of flexibility. A particular man can be lifted by training and inspiration to fit a position which might otherwise be far above his abilities. Also, occupations can be changed greatly depending on the force and aspirations of the man entering them. What qualifications of a man should be considered?

Level of Ability

The first insistence should be that the man has a high enough level of ability to qualify for the training and the later

requirements of the position he is considering. Ever since the first World War, psychologists have been informed about the general level of ability of each major occupational field, as measured by standard intelligence tests. Converting roughly from the old Army "Alpha" examination, certain levels of I.Q. are to be expected in every important occupation. Understanding that 100 I.Q. is the normal average level of ability for all Americans, the middle fifty per cent in each occupation is approximately as follows below:

Occupation	Lowest Quarter is below	Highest Quarter is above
Physician, Lawyer	120 I.Q.	140 I.Q.
Teacher (Grammar School)	110	135
Accountant, Nurse	110	130
Retail Store Manager	105	125
Pattern Maker, Detective (Superior)	100	120
Counter Sales Person	95	115
General Painter, Truck Gardener ..	90	110
Factory Worker	85	105
Dairy Hand, Deliveryman	80	100
Laundry Worker, Farm Laborer ..	75	95

On this same scale one could himself estimate the middle fifty per cent range for most common occupations. For example, high school teachers are generally college graduates, a large per cent of whom have a fifth or graduate year of university training. Hence their range is higher than that of the grammar school teachers, or roughly 115 to 140. The range would vary considerably depending on the part of the country and the quality of education which was available. In general one might conclude that those in the lower quartile group, i.e. below the range indicated, are not up to standards preferred in the professional fields, whereas many of those in the upper

quartile of a group are capable of above standard operation.

Does such a listing indicate that a person should not enter a field if he is above the fifty per cent range for that occupation? It is a major premise of this booklet to insist that this should not be the case. Many have greatly up-graded their field because they are above the average range. New occupations have been developed. A very brilliant salesman may become a model demonstrator or sales manager because he is far above the average salesperson on the force.

However, if an occupation has aspects of rigidity, if there are few chances to grow, one should be wary of entering it if he or she is well above the mid fifty per cent range, that is, in the upper quarter. For example, an extremely able college graduate thought she would be happy in a high grade clerical job in the registrar's office of a college. She quickly rose to the top of all clerks, but lacked the personality or desire to administer a large office, i.e. to climb into a different occupational bracket. She had reached her ceiling, and the job had very little stretch in it; hence she became very unhappy. One is tempted to say that for all professional fields there need be no ceilings. There are great opportunities ahead for those in the upper quartile. Nursing may be an exception, especially in certain hospitals or in connection with some doctors. However, there is always the chance of rising to be a nurse supervisor or specialist where special methods or treatments must be developed (e.g. the Kenny method of handling infantile paralysis.)

It is easy to confuse the intelligence and the academic status of an individual, largely because all of our intelligence tests are loaded with the factor of education. Naturally a boy who has finished college will tend to score higher on any intelligence test than his brothers who only went through high school. Psychologists have found some men advancing from the lowest quartile point of a freshman group to the highest

quarter in their senior year of college, though this amount of improvement is rare.

On this count it is probably fair to say that a man with an I.Q. rating of 120, on a standard intelligence test (e.g. Wonderlic) who has not been to college, will tend to be a smarter person than a college graduate with the same rating. Additional academic training inevitably will give a boost to one's vocabulary, and further advantages in reading or problem solving, whereas it may not help a person much in his capacity to solve practical problems, or handle social situations more gracefully.

To decide which is more important, academic status or sheer brilliance, is not an easy question to answer. Doubtless it depends on the particular job. One cannot become a doctor without six to eight years of academic training beyond high school no matter how bright he is. A salesman with only two years of high school and an I.Q. of 110 may have gathered enough information in his field, and enough social attractiveness to outsmart the average college graduate of 125 I.Q. On the other hand, in a technical field this would be rare. For one thing, college graduation implies steadiness and continued growth which is not to be expected in the two year high school student (unless he was forced to drop out of high school to help the family).

Perhaps it is safest at the present time to consider General Ability as a rather vague concept, a compromise between the standard I.Q. measure, the level of academic attainment, and the quality of work maintained. A bright person of perhaps 135 I.Q. is likely to be a handicap to any industry if he has been only a C-minus student. He has operated far below his intellectual capacity. He is lazy or easily distracted. A B-plus man with an I.Q. of 125 would be a much better risk for most jobs.

Special Aptitudes

In addition to the importance of choosing the right level of occupation, there is the desirability of optimum use of one's special aptitudes. Whether or not we are born with these special abilities, there is no question but that older children and adults are widely different in their capacities for certain activities. The commonest difference in all these special aptitudes is the distinction between **number** ability and **verbal** ability. Some children who are very capable in most of their subjects in school find arithmetic very difficult. Other children, including many college students, handle mathematics with ease, but have difficulty with English composition. There is even a difference between the special aptitude for attention to grammatical form and the capacity to write interestingly. Many correct writers are stilted and uninteresting in their expression. For this reason the Co-operative Test Service in New York has devised a dual testing unit, one sheet for the testing of **mechanics** of English, and the other for **active expression**, which includes a section on choice of phrases or idioms, and a section on fluency in vocabulary.

To what extent may we say that such a distinction must be held to in later vocational choices? On this question there would be a difference of opinion. For example, suppose a boy wished to be a mechanical engineer. He had worked in shops, perhaps had his own tool kit and small power lathe at home. Should we say that mechanical engineering is impossible if he has a weakness in mathematics? Certainly it would be very difficult for him to master advanced algebra, analytical geometry and calculus, all of which are required courses in any mechanical engineering curriculum. Only the greatest urge and a vast amount of remedial training in mathematics could overcome the very real handicap. There have doubtless been a few writers seriously handicapped in language usage, who have been

able to overcome disabilities because of a tremendous urge to excel as authors, but the great majority of such individuals fall by the wayside, and would have been far better off to have altered their aspirations at an early age.

What, then, are the types of abilities and capacities which show up in late childhood, perhaps at the end of the high school period, which we can measure and by which we can guide young people, or at least advise them strongly? We have already mentioned the first two capacities, verbal ability and number ability. The range of occupational choice is fairly evident. The productive thinking of the engineer is ordinarily in mathematical terms and requires a quantitative type of logic, whereas those who work in foreign languages and in English writing naturally must be skilled verbally. However, many fields require both in almost equal proportions. For example, the social scientist, the writer of text books, or the teacher in any science field, should have verbal fluency and also enough number facility to handle statistics and to express himself. Several studies have shown that administrative engineers should also be verbally fluent.

Space Relations Ability

This has been measured in various ways. A person who can count tiers of blocks (some of which are behind others, and hence must be imagined) will generally make a high score in a figure analogies test, or in assembling a mechanical gadget when the parts are given. Genuine deficiency in space imagining will usually show up in solid geometry and in physics classes. Several subdivisions or supplements of space relations ability are calculable statistically, but cannot be touched on at this time. It is enough to point out several areas where such ability is important. It is of great importance in most branches of engineering, especially in designing and in physical science research. There

is some evidence that the enjoyment of history is in part dependent on such space imagining.

Memory

Nearly all analysts of special ability agree that the basic ability to memorize can be roughly generalized, that in spite of other capacities, people differ significantly in their ability to memorize and retain words and ideas. There are doubtless wide variations in the capacity to memorize different sorts of things, for instance exact phrases in a book, or specific objects in a store window. Certain kinds of occupations stand high in their use of exact memory, especially law, or any type of public speaking. Salesmen benefit greatly if they can recall not only the names of their clients but many incidental points about them, even the hobbies of their children. There are stories of hotel clerks who become of great importance at front desks because they can immediately name a large percentage of former guests when they return.

Dexterity

Here arises another debatable question: Is there a general capacity for dexterity, or are there many unrelated types of dexterity? Perhaps this depends mainly on the age of the person. General ability to handle things dextrously may be developed at an early age into various successful manipulations in later years. For example, a physically capable young boy who runs fast for his age, and plays baseball or builds model airplanes may easily be developed into a skilled mechanical craftsman, or into an experimental physicist, or again into a good pianist if the boy could be prevailed upon to practice. Many occupations depend in part upon the use of the hands or body as a whole; early childhood experiences are likely to be reflected in ultimate unusual ability. For example, we have found among dentists a large percentage of musicians—trumpet,

violin, and piano players—or else those who as boys had their own tool kits and a hobby of construction.

Deductive Capacity

Several investigators have suggested that this type of aptitude is necessary for mathematical ability, also for law, and for the upper levels of executive management. A mere number sense may help one to solve simple arithmetic problems rapidly, e.g. to be a rapid bookkeeping accountant, but without the ability to use analogies, to figure from a general known formula what to do in a new specific case, one may be stymied. Ease in handling algebra problems is a fairly good test of deductive capacity. Another test, entirely outside the mathematical field, might be one's ability to deduce the ending in a detective story (although most detective story writers too often glory in the unusual and incalculable.) Again, one's enjoyment and success in debating political problems is a test of deductive capacity in the purely verbal field.

Combinations of Aptitude

Nearly all professional fields require the cultivation of more than one special aptitude. Let us take for example a research scientist. He must have a number sense as well as verbal sensitivity. Ordinarily he will use deductive logic in his new proposals for experimentation. If he is above average in memory and in dexterity he will speed up his work. Correspondingly, high grade executives of large industries have generally been found capable in several respects. They are logical, with good memories and verbal abilities. But special aptitudes and ineptitudes should be watched. A boy who "beats his brains out" trying to master algebra and develops severe depression and insecurity, might become a very good salesman or lawyer or publicity director.

Many a son follows in his father's footsteps, but sometimes an important aptitude combination does not pass down from

father to son, and the son should be strongly urged to follow a different pattern of occupation. A complete failure as a pre-medical student who was trying to follow his father's footsteps was flunked out of one college, and nearly failed in another college before he was finally switched into Business Administration, where he became an immediate success.

Often, however, it is of value to guidance experts to know just how successful a boy's father was and in what particular respect. More than likely the boy has some likes and tendencies which are similar. A news writer tried very hard to get his son into a scientific field because, as he said, "There is no future for a newspaper writer." The boy nearly failed in college until it was realized that in English and in foreign language study the boy was an exceptional student. He later became a fine language scholar and the principal of a boys' school.

There are many other special aptitudes which one psychologist or another has emphasized including artistic, musical and dramatic talents. Some of these have been carefully measured; others are still at the experimental stage. The important thing to keep in mind is that a reasonable combination of basic capacities should be insisted on if a young man is starting his career, and these can often be evaluated quite accurately.

Interests

A young man's interests are often quite sharp and definite; at other times they are vague, but with some direction. For example, one student says, "I have always wanted to be a doctor and nothing else will satisfy me"; another says, "I think I would like to get into one of the social sciences, perhaps go into law, but I know I don't want to take mathematics." One might refer to the latter as a negative interest. How much attention should an advisor or parent give to such differences in expressed interest? Certainly it is possible to over-stress their importance. Sometimes a boy will pick up interests from a neighbor friend;

sometimes he will read a "glamour type" story in a magazine. Often a boy can be talked out of an apparently strong interest in a few minutes time.

We do have several very commonly used tests today for the basic interest pattern of a young man, particularly the Kuder Preference Test and the Strong Interest Test. These present a profile of interests which shows the learning a boy has. The tests are far more valuable than mere statements from the boy himself since they include several hundred items, many of which may be of importance. For example, a person will not rate very high in medicine if he does not like science and mathematics, but merely enjoys talking to and helping out an unfortunate person. The interest test pattern is a composite made up from many urges and special likes and dislikes. For example:

Would you rather
Act in a play, or
Coach the play, or
Manage the lighting effects.

When many such items are introduced, a composite interest profile becomes available and may be very useful. However, several questions and difficulties should be mentioned.

Interest patterns do not always remain the same over a time interval. Some students change interests significantly because of a course or a teacher they like or dislike. Minor experiences, e.g. learning to dance, may affect one's sociable tendencies and hence apparent vocational patterns. Furthermore, there is no good measure yet for the depth or strength of interests. Perhaps this type of measure will soon be available; perhaps it is not of great value, since guidance counselors often suspect that a strong interest is driven by emotion rather than a sense of logic and sound thinking. The main value of know-

ing the emotional force behind a stated interest is to understand how to attack a thoroughly illogical interest.

What should be given most attention, one's basic intellectual and special ability pattern, or one's interests? This question has often been debated, and the answer, of course, depends on several supplementary questions. Just how far apart are one's interests and abilities? Can the interests be easily diverted by additional knowledge or is the person pretty well informed already concerning his handicaps? Can remedial training be applied where there are defects in ability in order to bring a person up to par?

In general it is much safer to put the primary emphasis on the ability level of a person and his special aptitudes for the following reasons: (1) It is much easier to alter interests than to change the basic abilities with which one is born or has developed in early childhood. (2) People are often confused about many varieties of occupation, what the actual demands are in different jobs. Lack of information may make so-called interests meaningless. For example, suppose I say that I want to be an explorer of the South Pole area. I have read some of the adventures of explorers and the whole subject fascinates me. Does this mean I could really stand and enjoy the hardships, the cold, the solitude, or that I possess the intense scientific spirit that inspires most of such investigators? (3) Young people are often taught to say they are interested in certain things because of parental urging or even insistence. On many occasions we have encouraged students to reconsider occupations, when they have answered, "The folks won't even send me to college if I change my course." Nearly always these parentally driven individuals come to grief; their apparent interests do not make up for capacities in other areas. If a strong parental interest coincides with, and fortifies the interest pattern of a boy, the results will usually be satisfactory. An important book by Taussig and

Joselyn on "Business Leadership" stressed the large percentage of outstanding business leaders today who are the sons of business executives of a former time. Like father, like son, seems to be fairly common both with regard to interest and ability in the higher business fields. A boy seems to acquire a special culture and early training from his father which fits into the administrative pattern.

Attitude and Drive

A man's interests, as avowed and expressed, are quite conscious but often not entirely consistent with other traits. He may talk about having an interest which is not in line with basic character qualities. For example, in spite of his desire to be a doctor, he may be unable to function in operations or other critical emotional scenes. Our attitudes and drives are more unconscious and deeper parts of our personalities. A well adjusted person must be lined up occupationally so that these unconscious mechanisms do not interfere. In a book edited by Morris Fishbein, "Why Men Fail," several authors point out cases in which men were thrown off the track of their main ambitions by unconscious inferiorities, or instabilities regarding sex or other matters.

"In the Razor's Edge" Somerset Maugham portrays the life of a very able individual who cannot reach the point of success, as it would be known in our culture, largely because he ultimately revolts against the artificiality he finds in many successful men. An insurmountable block obstructed further progress when great accomplishment was almost in his grasp.

A certain amount of orderliness in everyday tools, papers and ideas seems very important in most administrative positions. One must distinguish what is most important from what comes next, and this timing and ordering of events should be a controlling impulse. For certain kinds of journalism, for successful teaching, or for high grade selling, this orderliness may not

be nearly as important. Other basic character traits are probably more important for the writer, e.g. the ability to recognize and portray character, a sense of humor, easy side-slips into fancy, and a strong appreciation of the good human nature story.

The rigidly honest individual may have the habit of fearless truth-telling imbedded so deep in his system that he does not belong as an advertiser or a salesman, perhaps not in business at all, since there is an assumed attitude in nearly all business transactions that one does not have to tell the whole truth about his product—merely those things which are favorable. On the other hand, in a research office in physical science, in a teaching position, or in a fairly routine civil service occupation there may be no such contradictions.

Emotional experiences may be so forceful as to practically eliminate an occupation from all future consideration. A very able college student who had planned for years to be a lawyer worked one summer in a law office in which several deals were made which he regarded as crooked. This was enough; he could no longer imagine a lawyer's office which was free from some type of underhanded dealing; he wanted to escape into another world of activity.

One may suspect, but cannot always determine, strong urges and obstructions. For example, there was the story of the brilliant pharmacist who did not enjoy selling most of the odds and ends found in a modern drug store. He was even annoyed by the advertisements, with false over-statements of medicinal values, found on many of the package drugs. He asked first to be placed at the prescription counter where he could mix up most of the drugs asked for. Even this was not satisfying, and he found himself critically judging some of the doctors. In despair he moved from one store to another, and finally accepted a commission in the Army during the war.

There he finally found greater satisfaction than ever before. In a fairly small hospital, he was in close enough relations with the doctors so that he could give them his ideas about certain drug compounds. There was a personal satisfaction in contributing to the information of others, as the doctors, realizing that he was amazingly well informed, often sought his opinions. Although he had no technical right to prescribe, his occasional contributions on recent drug developments gave him social recognition due to his unusual grasp of the pharmaceutical field.

Some men and women have a strong inner yearning for the management of their own industry, be it ever so small. They don't want to take orders from anyone; nor are they willing to co-operate indefinitely. They wish to become the lone rangers of the business world, and in many cases good occupational adjustments can be made by starting a small store with independent or borrowed capital. A few hundred dollars, preferably a thousand or more, or available credit is sufficient to start a general store, or a small grocery store. But in many cases these independents come to grief, largely because of pitfalls in their own characters which may be related to their independence. Some experts have figured that less than twenty per cent continue or build up to the point of being really successful.

As we have suggested above, the reasons for innumerable small business failures are many, the chief of which is lack of experience in purchasing or accounting. Small business operators glory in their independence, but the character and personality traits related to independence as a general attitude are often handicaps. They don't take suggestions from others who have had experience. When they get into inevitable money pinches they are likely to flare up at creditors since they have not grown up to see the other man's point of view. Many of them are rather badly spoiled children, grown

up in years, not in emotions. They pout, they blame others, they may buy and sell large orders impulsively without proper consideration of the consequences. Many are downright lazy; they don't want to work for others or themselves.

Independence is an excellent trait if it is combined with other very important character traits—integrity, honesty, foresight, and hard work. Otherwise it may be a handicap. One of the saddest predicaments this writer has ever witnessed in a young man's family is related below:

Clarence was the only son in a well-to-do home. His two sisters seemed to grow up normally, were married in their twenties and seemed to be happy. The boy, however, always in one difficulty or another was reared with the understanding that inevitably his mother would come to his rescue. When he was fined at the age of seventeen for excessive speeding, his mother quickly paid the fine. He was a poor playmate and a poor student. His teachers said he was bright enough, but could not seem to concentrate. Through the influence of his parents he was reluctantly admitted with full warning into a respectable college, but failed miserably. His main excuse was "that college is full of old fogies; I want to get married and settle down to a real job." His father placed him with a friend in the industrial oil business, and as there was a good boom in this field in the middle nineteen twenties Clarence made a good start. However, he was extravagant, always needing money from his mother. In travelling about in his area of the state he lived a reckless social life, but nevertheless seemed quite happy in his own home with two children. When the crash of 1929 came, Clarence was in trouble. He had not co-operated well with his sales manager. He had worked a few crooked deals financially in connection with another company, he had lost his temper repeatedly with customers, and

the district manager called his attention to the drop out of several good former clients of the company. This made him "blow his top" and declare that he would form his own company and manage his own affairs. He turned to his father for financial aid, but just at that time (1930) his father was in serious financial difficulty. In fact the family fortune was rapidly disappearing in a frenzied stock market. His own family of two boys were being brought up as prigs, to follow in their father's path, and his wife was a nervous wreck. He had burned his occupational bridges behind him; he was an "independent" without resourcefulness, good character traits or a good education to use as a springboard for something else, to say nothing of a good recommendation by his former employers.

An insistent determination to overcome handicaps and difficulties would have saved this man, but he was not up to it. He is still a drifter, finding work when there is plenty to do, and when it is easy, but spending far too much for liquor and other personal satisfiers, nearly ignoring the welfare of his family.

What is back of the terrific drive which some men seem to have, a fighting spirit which takes them beyond all obstacles, keeping their spirits lifted and their self discipline well under control? Most psychologists would say that certain factors during the first few years of life were probably responsible; how independently the young child managed his own toys; how well he planned things ahead and stuck to his plans; to what extent his parents held him responsible for finishing tasks and for the consequences of his actions.

The responsible acts which fit a man with a strong drive to overcome difficulties are those which demand some aggressiveness, and repeated efforts in the direction of breaking resistances and indecisions of weaker men. As one salesman truly re-

marked, "When I see my proposed customer begin to waver a bit in his decisions, to become vaguely wishful in his thinking, then is when I take over." A good executive must take over from the petty planning and intrigue of his subordinates. He must carry out ideas which transcend the desires of small departmental heads.

Drive is necessary for any one who must keep on getting orders from old and new customers. It is desirable for management of almost any store. It is the main ear-mark of the Yankee type of entrepreneur, who struggles to accomplish his own dreams, for his own profits and the welfare of his family. If a man with a lot of this drive finds himself in a position where there are few outlets for his energy, he becomes very unhappy. For a while he may put in overtime, but no man enjoys working without benefit to himself.

The greatest difference between an engineer who is successful and one who is just average, according to one executive, is "this insistent drive to make something new out of his job. If he ever gets the notion clearly that his primary job is to change or even eliminate the very thing he is doing, through various changes in machinery or methods of work, he learns the lesson most important for a good engineer." As he changes his work, in the direction of greater efficiency, or in the direction of human satisfactions, he will be placed in more strategic positions, eventually promoted to executive management.

Sympathy for others may be so deeply ingrained that one is happy only in helping other people. Nursing, social service and the ministry are examples of this type of urge. If one does not have this strong desire to help others recover from their distress, these occupations become tedious and lacking in the recognition for effort. There is no easy way of measuring the consequences of a friendly smile, a helpful suggestion, or a nicely worded phrase which makes anxious men look up.

The bishop of an Episcopal diocese was discussing the case of a college graduate who had been sent to him for recommendation about a theological seminary. He said: "I could not truly recommend any seminary for this man. I did not want to see him in the ministry; he talked continually about himself, and the possibility of his own advance in the field. It would be better for the world to have no ministers at all than a man of his natural inclinations." In contrast there is the case of a conscientious objector in the First World War, a brilliant intellect with Phi Beta Kappa honors who carried on the finest social case work records without compensation for years. The main concern for this man was service to and sympathy for others.

A summary of these factors which go to make up personal fitness for one job, while indicating unfitness for other fields of work, must be sketchy at best. Any strong fear developed in childhood, or a boyhood ambition may turn out to be crucially important in connection with the enjoyment of or unhappiness in a type of occupation. Often the job itself is not of importance; it is the particular situation, working under a certain manager or in a particular environment. Occasionally a teacher will dislike teaching in one school system but get on well in another, because of a better discipline of students by the principal, or perhaps because there is a greater spirit of freedom and happiness among students and fellow teachers.

Sometimes a person can make a job, to which he is at first ill-suited, fit him. For example, a young engineer was glad to get a job on a drafting board, since he expected to work towards machine designing, and this was regarded as a good stepping stone. However, his immediate superior, he felt, was very fussy about non-essentials, and he was kept most of the time copying when he should have been given more original drafting. Soon he found himself very depressed, loathing the

work he was expected to do. It occurred to him, however, that some of the plans he had been asked to copy were not too well designed, hence in spare time at the noon lunch hour, and in the evenings, he redesigned two or three fundamental drawings, and showed them incidentally to a chief engineer whom he had met. This quickly led to a reorganization of his duties, a part of which came under an abler original designer and he was relieved from the hopeless depression he had previously felt.

The fundamental steps seem to be:

- I. Examine what one can do well and enjoy.
- II. Analyze the positions one is offered, or might get, as to present and probable ability level and special inclinations.
- III. Try out the best job offering in view of its opportunities for learning and development, its fitness with one's interests, etc.
- IV. Make readjustments in one's self, if possible, and/or in the work, looking towards changes which will bring (I) and (II) more closely together so there is all around harmony.
- V. In examining both one's self, and the job, do not hesitate to take advantage of the various facilities now available for self analysis of one's capacities, and so far as possible, secure a clear analysis of the duties and expectations and promises in the job.

As we have indicated above in this chapter, the main survey should include as many considerations as possible which aid in fitting the man to the job.

ANALYSIS

1

For the Individual

His general intellectual ability as estimated from I.Q. tests, and the quantity and quality of his school work.

Of the Job

The level of the job—how abstractly must one think; what are the variabilities and chances for growth in effective intelligence.

2

An appropriate pattern of special abilities or aptitudes for his chosen field, involving differential strength in mental factors (verbal, number, space, memory, reasoning, dexterity, etc.)

The special requirements of the job, demanding free exercise of some aptitudes and traits, less ability along other lines. What types of capacities (found opposite) are essential.

3

Expressed interests harmonizing with abilities both as to the name of the occupation, and with respect to minor aspects of it, e.g. liking for social life, artistic, routine service, scientific, mechanical or literary activities.

Does the job call for the free play of his tendencies, those activities he likes best? Does the job setting fit his moods and emotional requirements?

4

Are his attitudes and unconscious mechanisms of thought and action suitable for ultimate success? Does he have in the right degree some of the tendencies listed on the right?

Does the occupation as a whole require more than average inclination for (one or more):

Orderliness — including care of details.

Rigid honesty (vs. bluff).

Initiative, flexibility.

Independence of management.

Co-operation with others.

Insistent drive or perseverance.

Sympathy for others.

G.I. Henry

The following case study may be regarded as a reasonable summary of many of the points discussed in this chapter. But it is not completed yet, and many questions could be raised.

Henry came back from nearly four years of army service, two and half of which had been spent on New Caledonia Island, in a relatively protected and inactive spot so far as the war was concerned. He had been a moderately good student in high school, but when he returned to home and college he was a total misfit. Henry reported to his dean that he was enjoying himself at college, but could not get down to work for any length of time. He felt he was understanding things quite well, but slipped behind unwittingly.

In the course of several discussions he revealed the following situation. For many months at this island he and his close friends expected to be picked up and shipped somewhere else. Ships would come and go; men would relieve others, but some-

how his little crew of workers—most of them in a base hospital—were never relieved. At first they swore, cursing everything. Why should they be neglected so? They were perfectly willing and anxious to fight with the rest. Then they became depressed, wondering what were the plans of the big men on top. They actually feared they would never see the United States again; they finally spoke in whispers to each other about it, and wrote to their folks at home to influence Congress. Even this didn't seem to do any good. Their work lasted only an hour or two a day; they gambled a little, read a little, but for the most part idled and developed fantasies in their self pity. Actually psychologists would probably agree that a homeostasis, or set pattern of idleness, had been generated, which could not be easily eradicated.

Henry's intelligence test scores were high—well above the college average—but his marks were at the bottom, and after two full years he was required to drop out. He was an attractive boy, fine looking and a good conversationalist. He could "sell himself" to almost any employer. What could and should the college do for him? There is not too much proof that all failures in college would be poor workers, so the personnel office located several job opportunities for him. He visited each of the following, and received actual offerings to begin work in three out of four cases, and might have been hired in the fourth place if he had persisted. Some comments are given after each occupation considered, with some aids to thinking contributed by the personnel man.

(a) A purchaser's assistant in a large department store. This might have led to the job of a buyer-executive in a fairly short time, giving him responsibility over 25 or 30 people. Initially he would earn \$175 per month, and his progress would depend on him.

(b) A sales representative on a salary basis, to visit former

customers of a large firm, inquiring about further needs, and stimulating sales or at least new wants. He was offered \$250 per month right off, with a chance of more at the end of six months, but most of his time would be spent away from home.

(c) A sales-management position with a small firm, guaranteeing nearly \$200, with the use of a car, but some travel, and a little uncertainty about the future of the firm.

(d) An assistant bank teller, near his home, earning \$140 per month, with little chance of much advancement. This was a confining clerical job at first, dealing largely with figures, and Henry's talents had been more with people and words. He had an exceptional vocabulary. Ultimately, of course he would be a teller; would talk to people; would dress well (a strong urge after getting out of army clothes) and might become a bank executive.

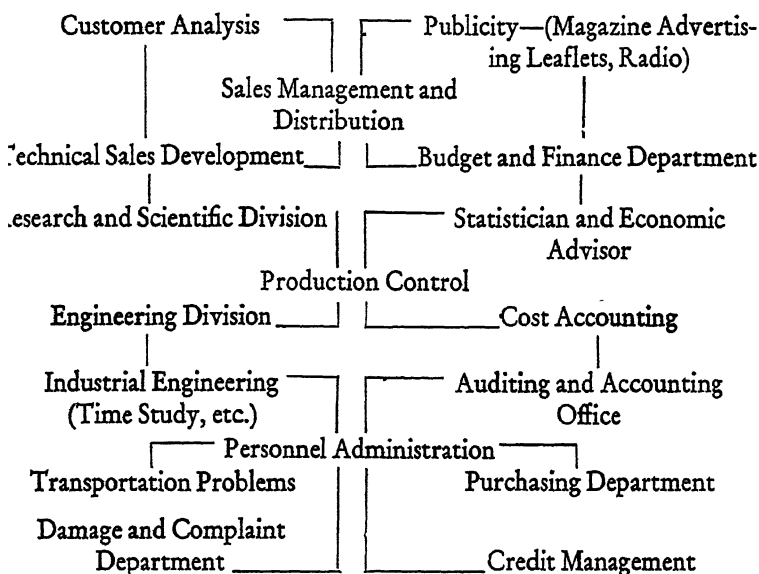
As one might expect from the story of Henry's army experience, he did not hesitate long; he accepted the bank teller's assistantship with its security and freedom from decisions. He seems to like the regularity of it; the steady hours, the discipline; and he certainly needs supervision. He is rigidly honest, and he is in the mysterious "inside" of the money business which has fascinated him since childhood.

IF one attended an officers' training course in the Army, he was introduced to the entire structure of the army. His officer's manual contained the duties of all officers and the nature of their co-ordination or subordination to others in the service. When a new variety of officer is introduced into the army, his duties must be very clearly marked off—usually in a supplementary manual—in order to avoid friction and duplication with others. Similarly, in large business houses charts have been drawn up to indicate the inter-relationship of all the major positions. In most cases in a modern socio-economic organization we do not function under a military line of authority, but business officers have become functionalized. Each office has a primary duty to perform in conjunction with other offices but without any necessary hierarchy. This chapter, indicates that a part of occupational up-grading is to enter into these inter-personal relationships and thereby to increase one's services in an institution. A man is often valued most because of his co-operativeness, or his capacity to co-ordinate the activities of many other people.

Let us map out a modern central managing office, with its various functionalized sub-divisions. In spite of variations, from one industry to the next, there will tend to be similarities,

except for those organizations which are set up under a dictatorship, or one man control. Arrows are drawn between offices which are particularly close in their functions; however, no man can afford to be ignorant of the main functions of each separate office since he must tie in with all of them. In general, there will be a board of directors whose executive committee selects the president, and may participate in the selection of vice-presidents and other staff members. The board of directors also settles the chief policies regarding expansion or change in the type of business. Except for important controlling policies such a board may have little further to do; in fact, in many companies the board meets only once or twice a year.

Departments Under a Typical Executive (President or Vice-President)



In addition to the above group of offices, or functions, one might add "Factory Management Division," "Treasurer,"

"Executive Vice-President," etc. Several offices might be tied together, but nearly all have several different bonds. The essential advantages of such an organizational outline are the following: (1) It shows that no office is a separate isolated organization. Each must function directly with others. Many close contacts are not shown in this chart, for example, interrelation with the Credit Department and Selling, or Engineering and Research. (2) It suggests that men may transfer from one department to an allied unit, and therefore each subordinate should be partially trained in the activities outside his present work and willing if not eager for transfers. Hence all around training in business administration is practical. (3) A clear statement of the functions of each of the above offices should reduce the amount of overlapping that is common. In order to direct one department a man must evaluate his boundaries and his cooperative responsibilities with others. In many cases one department might be placed directly under another, for proper harmony, e.g. Customer Analysis under Sales Management. (4) As Harry Hepner has shown in his "Human Relations in Changing Industry", one of the essential requirements in any young business executive today and which is even more crucial in the advance to the top position, is the ability to see the whole picture and to work harmoniously with others. A poor coordinator, a man who hides essential data from his associates or one who gives false impressions to confuse another office, is an obstructionist at heart and therefore has no warranted place in modern business. For the best harmony in large organizations each column above might be placed under the supervision of a vice-president.

In the smaller industrial offices, and in many subsidiary or regional offices under a large industrial home office, the functions cited above would ordinarily be combined under only a few men, each man taking care of two or more of the activi-

ties to be performed. Even in these circumstances it helps an administrator to keep functions separate in his own mind. For example, a regional sales manager may feel that it is not his business to make an analysis of his customers; in fact he may know and care little about statistical charts and exact differences between the customers of his company and those of a competing company. If a chart shows that this is a part of his responsibility, he will be more likely to become familiar with these methods. Naturally, every function would not be represented in each branch office. However, the average branch restricts itself far too much. It would create a more active organization, with more alert functioning, if nearly every one of the above occupations was taken care of to some extent. It is on the basis of the development of a full appreciation of all these functions, and some attention to them, that branch managers get promoted to home office jobs.

The difference between a functional chart and a promotional chart should be fairly clear. In the above organization there is no necessary line of promotion. Good men may be easily transferred from one department, or function of work, to quite different departments, but in no constant direction. On the other hand, promotional organizations may occur in any one department; for example:

MAJOR EXECUTIVE (e.g. Vice-President)

Accountant	Office manager	Secretary
Cost clerk	Chief clerk	Correspondent—
Stock clerk	Sales clerk	(routine letters)
File clerk	Receptionist—	Stenographer
Checker	(telephone, etc.)	Head of Typing,
	Messenger	mimeographing
		Typists

This organization chart for a business office is perhaps oversimplified. However three lines of promotion are suggested, persons in each column normally rising to more advanced but similar jobs. The chart does not show the amount of co-ordination that is necessary between types of service, whether or not the Office Manager receives orders from or merely co-operates with the accountant and chief secretary of the major executive.

In the older line type of army there was complete understanding of authority at all times. No careful job analysis was necessary. In the recent war there was much greater complexity of structure than in preceding wars, and in many situations not subordination but co-ordination must be the main emphasis. The Pearl Harbor episode indicated poor co-operation between the Army and Navy and the air forces belonging to each. Largely as a consequence of this drama came the complete reshuffling of the higher officers and ultimate fusion of military services under the Secretary of War. In a modern army there are many branches which must tie in together with a common authority on top, but with association rather than order of command represented in many minor offices, including non-commissioned sergeants and others. For example, there is the signal corps, the intelligence service, the chemical warfare branch, ordnance and many other co-operating units. It is a large part of the duty of the leading men in these branches to communicate with their associates, often to ask for co-operative service.

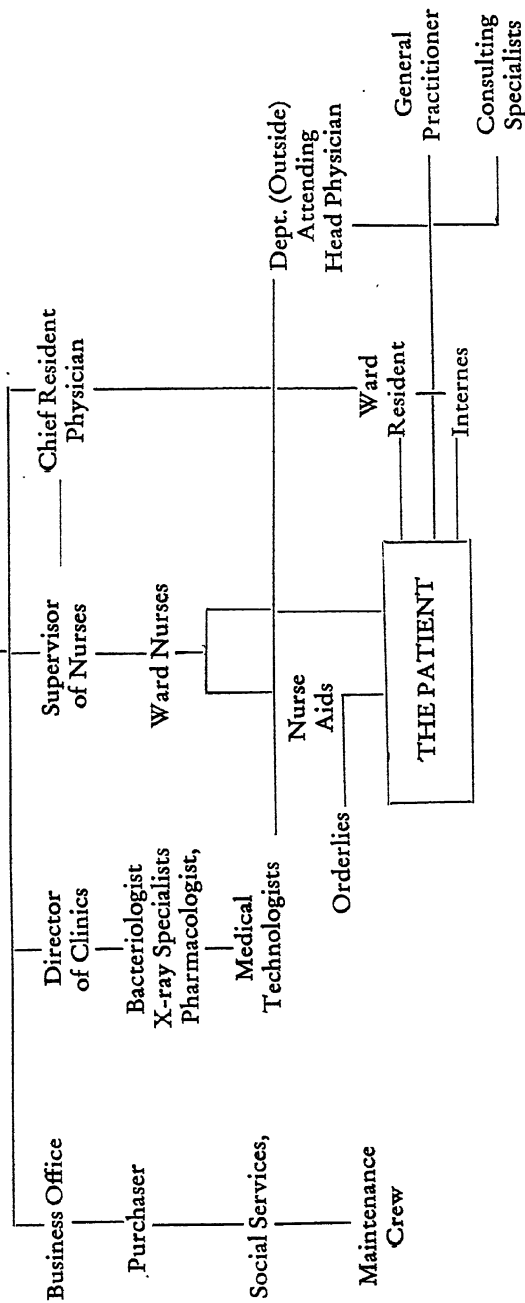
Similarly, Medical Administration requires harmony. In a complex organization, such as a hospital, we see many men working together without well defined order of rank. An X-ray man, a medical technologist, a head nurse, a ward physician and an outside consultant all may be involved on a single case, with no permanent authority of one over the others.

The medical, or health connected, occupations have a good illustration of interrelated occupational fields without any necessary superiority in socio-economic status; but in specific cases a line of authority may arise. For example, in a particular type of digestive upset a man's doctor takes charge; under him, at least in a sense, a dentist is called to clear up a dental condition. A consulting specialist checks on the heart. A pharmacist fills an order for a prescription, and a nurse follows suggestions regarding diet and other matters. But this constellation and order of rank is temporary, and may be completely altered in another case, where the heart specialist is dominant, but uses the stomach specialist as an aid, coincident with others. The entire orderliness of treatment depends on a recognized code of conduct. True, a resident hospital physician may carry on temporary treatments (if a patient is in pain) which would ordinarily not be tolerated by his physician, and the attention given by different nurses may differ, but these variations are regarded as undesirable and merely as emergencies. In various changing relationships, then, we find the accompanying cluster of job experts (see opposite page).

In a well regulated hospital the lines of authority are fairly well defined, so far as physicians, nurses and other offices are concerned. When the outside medical practitioner is brought into the picture, with one or more experts whom he may consult, the situation may become quite complicated, with shifting lines of authority. The question of "who is boss" may depend on a delicate co-operative balance between outside practitioner, specialists, resident physician, or even a nurse (if in an emergency none of the others can be reached). The major point is that each person must co-operate with the others, and be aware of appropriate consultative and authoritative lines. The smooth running of the hospital depends to a large

Interpersonal Relationships in a Large Hospital

SUPERINTENDENT OF HOSPITAL



The general practitioner brings in the patient to the hospital, for operation or other special treatment. The resident physician and nurses of the ward may then take charge often referring the case to the head of a hospital department, who is the head man for certain specialties in the hospital but generally spends most of his time outside the hospital as a specialist. This head or the general practitioner may confer with consultants.

extent on such understandings of interpersonal relations, which in turn depend on good personality traits.

The following actual case illustrates the possibilities of friction in an unusually up-to-date hospital. A very serious complication of streptococcus and pneumonia was brought into this hospital under a famed attending physician who was determined to use the new penicillin drug, since the condition of the patient's heart indicated that other drugs would probably be too disturbing. His order went to the ward physician who instructed an interne and a supervising nurse as to just how he wanted it administered—with a spinal puncture every two hours for several days. During the night of the fourth day, however, the patient had a temporary set-back. The assistant ward-physician, then on duty, did not consult the charts or make contact with the attending physician (then out) or the interne who had been watching the case carefully. He injected a large quantity of a sulfa compound intravenously "to save the man's life" as he said. The result was a serious reaction which led to a much longer hospitalization than might otherwise have been necessary. The attending physician was irritated, since he felt the interne on call day and night should have been consulted and the patient's chart read. The line of authority had been upset and therefore a disturbance in the orderliness of the hospital procedure.

The problem of line of authority is very bothersome to a few men, who think in terms of directing others. For example, a man says, "I would never be a pharmacist, since he always has to take orders from the doctor." But in reality the pharmacist is a functional co-ordinate worker, not entirely under the doctor. He must interpret the doctor's written prescriptions correctly, and guard against preparations which are poisonous—calling up the physician directly in doubtful cases. Further, he must know many things about drug compounding which

are unknown to the physician, and never should feel that he kow-tows to the physician. Incidentally, of course, he must be a business man, with some knowledge of accounting, purchasing, and store merchandising practices to create a favorable atmosphere. The part of a co-ordinate consultant should never irk anyone, if he learns to play this part gracefully. The man who does not co-operate easily, the "lone wolf" type, may be successful in a small town, but not an effective specialist in city practice.

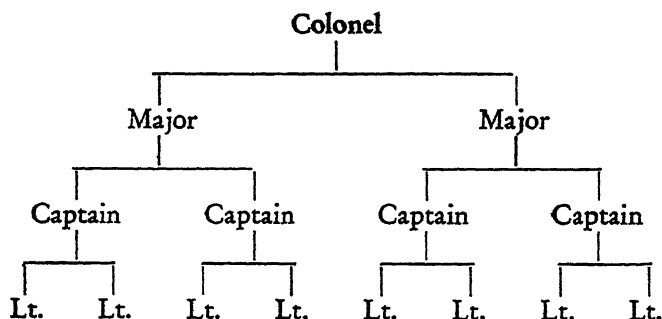
The dictator complex seems to be inherent in the temperament of many men. No one would argue that it is inherited, but it is deeply stamped into a man's nature through his early family life and boyhood influences. In a number of instances it has apparently worked to a man's advantage, since he operates rapidly by managing others around him. For a long time, in many fairly complex fields, the tendency may seem to be very successful, but its limitations may be very disruptive, for various reasons indicated below:

1. The dictator type is restless when he comes into a new organization, in which there are traditional practices, and in which some men have earned the right to be heard on certain subjects. He is likely to brush aside any advice, and try out foolish procedures, because they are new and different and because they are his ideas.
2. He frequently neglects the advice of specialists, and others around him who have more experience than he.
3. He brings in new assistants to do things which may be already handled quite well, causing duplications with existing offices. These assistants may feel "in the saddle" causing disruptive arrogance in connection with other workers.
4. As he gains power, often through appealing unfairly to top men who hear biased reports about "ineffici-

encies," and "how things ought to be done," he may completely ignore very important functions of the business, because of his own narrowness of interests, or because some one else does not take orders quickly. Often he thinks in terms of short-time successes, and neglects long-time good will and harmony among workers.

Varieties of Co-ordination

In the simplest forms of social structure the primary association is in one of authority or command. In a primitive family, the grandfather was typically the dominant figure, the oldest son coming next in authority, and so on down the line. Then came the children of the oldest son, or in some societies, the grandchildren by order of age. This order was held to in rituals, and as a basis for order of marriage or participation in war. To have an understanding saved argument. Now we have this simple order of rank in many of our occupational structures—for example, in military life. We can chart it by means of the single line with lines attached indicating the direction of authority.



But this order may break down as one goes from one office to another in a business firm, or even as he passes from one type of clerk to another when workers are co-ordinate

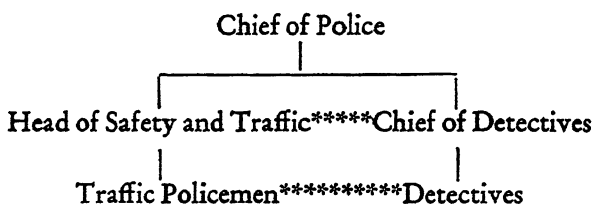
with each other in importance. So we need other types of designation.

Our second variety of co-ordination is one of mutual give and take or co-operative association. Sometimes this is manipulative, as when two people carry a piece of furniture, one at either end. At other times the relationship may be a verbal association, ending in agreement as to how something is to be done. In the army, for example, there were co-ordinate regiments of artillery and infantry, each headed by colonels, under a commanding general. To be sure, the main line of authority was a double line from the general to each of the colonels. But in combat the two colonels needed to be in direct association much of the time, each of them with signal corps units. There might be a temporary dominance of one commander over the other, but actually they were on the same level of authority and merely co-operating towards a common goal.

In business we have this type of co-operative association between offices, for example, a sales office and an advertising office, in which both have to work closely together, but neither in rank above the other—unless there is a working agreement as to dominance, by age or seniority in the firm, or salary paid.

The combination of the first and second varieties of co-ordination is very common in many occupational areas; in fact it almost may be implied when we have a mutually arranged agreement, since both partners in co-operation are usually under a directive superior. Let us take a city police force. Each city will differ somewhat from another, but ordinarily the entire police system is topped by a chief of police, under whose direction comes a safety director for problems of traffic, and a detective force for the handling of crimes. Each of these departments (perhaps along with others co-ordinate

with them) must get on with the other, by mutual agreement and often by written regulations:



Now under certain circumstances an order of rank may appear. If a criminal is suspected, the information goes directly to the detective department, by police regulation. From then on, so far as the management of the criminal case is concerned the detective force is superior. It can expect direct aid, and a certain amount of subservience to its orders from the traffic division.

From the above illustration we see the effect of a crisis, or special problem situation, which forces one of a mutual co-operative association into the foreground or position of actual dominance. The same situation prevails in an office, when the chief of a purchasing department and accounting head must co-operate and when certain issues before a directing vice-president will bring one into special temporary prominence. "My department can make or break the profit balance," says the cost accountant to the transportation manager. "But so can mine, just as quickly, if we don't pay attention to freight rates, speed of delivery, and other matters", is the immediate answer.

Mutually benefiting arrangements easily run into snags for various reasons. Sometimes the head is not strong enough, or sufficiently idealistic; or perhaps one or the other subordinate assumes a position of dominance. Sharp differences in intelligence or experience may make co-operation difficult, but more often one man may be stubbornly assertive, without "give", and with no inclination to alter old patterns of conduct.

A third variety of co-ordination may be referred to as **advisory**, in which one person is supposed to be better informed and may give advice, which may or may not have to be taken. A doctor, for example, may ask two or three experts for their advice, and may find them so incompatible that he may ignore much of their advice. The relation of a lawyer to his client is usually a simple advisory bond, as is that of a faculty counselor to a college student. The same link may occur in the relations of an insurance broker, or an advertising account manager to clients, for example, small companies who seek their direction. Let us indicate this by the line of dashes:

Advertising Firm ————— Small Business

In some cases the advisory relationship is much looser than in others. A salesman, for example, may argue with a prospect or give some information which appears at the time to have little effect. But there is a bond of communication built up, which may lead to closer advisory association later.

Different degrees of obligation to follow advice are experienced by all of us. Strong advice from an older member of a family, or from a lawyer may imply a serious break of relationships if we do not follow it. In a college personnel office, we find all degrees of compulsion involved in the advice given by faculty advisors to their students. In some cases a mere suggestion is thrown out for a student to consider, for example "I think you ought to consider taking a course in the history of philosophy". In other cases, there is an implied command, "See that you put trigonometry on your schedule", and both the professor and the student may feel that compliance is required. Students have often remarked as follows, "I didn't want to take that course, but I was afraid of my advisor if I didn't. He would not have O.K.'d my schedule otherwise." The relation of most counselors to students in required or referred conferences (e.g. probationary students) is more than

merely advisory. There is an element of authority mingled with advice.

The relationship of teacher to student in the class room offers a problem, since instructing can mean such different things. Under the strictest martinet type of teacher, facts may be issued as so many orders which the student is under obligation to accept. An examination or a question is a command to write or to speak. Under the more informal instruction of a seminar, or a small tutorial session, the student-teacher relation may be largely of the advisory type. In fact the teacher may spend most of the time listening. On the average there is an element of authority and also an advisory relation which we may indicate with a double line, one of which is broken:

Teacher ----- Student

Finally we come to a vague and miscellaneous group of relationships, which may be called **contributive and exploratory** in which one person offers to carry an activity with or for another person, without any direct or specific suggestion. A writer who submits a manuscript to an editor for possible future publication is in this position. We may classify entertainers in this same category, for example, a boy who suddenly gets an impulse to show off with a song or a dramatic stunt before others.

Farther up the intellectual and cultural scale we would probably place research and other types of exploration. Some of this activity is, of course, quite impersonal in that it is not directed to one person, but much of the motivation for research is to contribute data for an industrial executive committee, or for a scientific reading public. When public surveys were carried on, for example, of the Gallup poll type many people at first asked "Of what use are such random subjective opinions?" In recent years, however, the results

have been widely published. They were contributions for the reading public; they also became contributions for political parties, or for business houses who were thinking of expansion. Let us indicate this contributory relation by a series of commas:

Research and	{	','	','	','	','	','	Production
Survey Office		','					','
,							
,							
,							
Trade or Technical							
Journals							

A Personnel Office Combining several Types of Functions.

In recent years a number of colleges have developed a new type of administrative office, to supplement other work traditionally managed. The primary function of the office was to aid students in regard to (1) class room schedules, (2) difficulties with courses, (3) extra-curricular adjustments (financial, social, and emotional), and (4) placement in jobs, both for part time work while attending classes, and permanently after graduation or the completion of a curriculum of study. In a number of cases these offices have run into trouble because of older commitments to offices of deans or registrars, or traditional administrative assignments, such as those carried by faculty committees. They have been expected to co-operate very closely with existing offices, and also to formulate added types of association never contemplated in the older colleges.

Every type of co-ordination discussed above is practiced with one agency or another in the carrying out of their full responsibilities. First, they must receive implicit orders from the chief executive office, the college president or chancellor. But they must also follow regulations set up by the state, or

national professional offices in regard to required degrees and course sequences. Sometimes they follow suggestions of major industrial organizations—if and when they seem mandatory—e.g. a requirement that a girl coming into an organization must be a college graduate, or an experienced stenographer, if she is to be placed on a particular salary scale, or that no man is taken in without some training in accounting.

The personnel office must co-operate closely with the deans of the various schools, and also with faculty members, since it may assign a faculty advisor for each student, which arrangement must be mutually satisfactory. Its relations with students may be of two kinds. Primarily personnel counselors advise students regarding necessary or desirable courses of study or types of jobs to enter. They do not require and do not assume authority over a student's choice. They may, however, stipulate certain things: (a) how much work a student may carry in school, (b) that certain aptitude tests must be taken, or questionnaire blanks filled out, (c) that a particular course sequence must be followed if a student is to be certified by a particular department or professional school for advanced standing.

Incidentally, students discuss courses with personnel advisors. They talk about their professors and the values of courses, giving much data which can be transferred to deans or to individual professors—if they care to hear. In other words, there is a mutual give and take regarding course values. Contacts with students, therefore, are of three kinds, an authoritative dictation to some extent, an advisory-informational bond, and a mutual give and take which turns out to be a very informal bond of association.

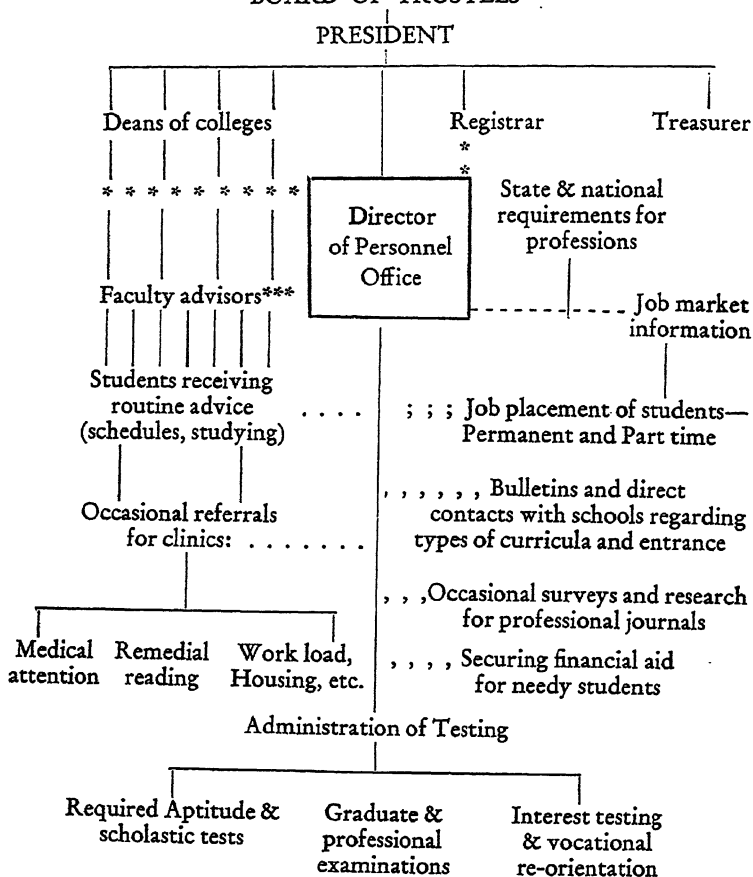
But a personnel office which is alive also is expected to contribute and explore in various directions. It must show its wares to industrial employment offices. Representatives

must be ready to give talks, or meet at committees regarding job opportunities in the community. Finally, if it is a live experimental center, it should occasionally contribute articles, as the results of experiment or controlled experience, to technical journals. The latter contributory relationships are with agencies distinctly outside the university area, and should therefore be represented by continual display of publicity (commas) or the occasional contribution of research and survey (interrupted comma.) Our complete functional picture would then be as shown on the following page.

This type of chart covering the functions and co-ordinators of the personnel office seems to make everything revolve around this office. This is correct only from the point of view of the personnel office. Each office of a college or industry would have an entirely different cluster of associations with other offices. Furthermore the exact picture would not be the same from year to year and from college to college. Any co-ordination chart must be considered as fluid, varying (1) according to the personalities of the people who operate it, (2) according to varying rules in the college. When a department changes its main requirements, or when the state education department alters a pre-professional admissions regulation, there will be minor deviations. On the other hand, if a new type of dean is brought into the picture whose business it is to handle probation cases and attendance problems, the picture would be radically changed.

In one large office a minor administrator was asked to chart the program of activities and responsibilities of his office. In order to do this it was necessary to go back to early written commitments from the chief executive office to other officials, and also to talk separately with each man to find out what he thought were the limitations of his job. He quickly discovered several important "cloudy areas" of operation in which two

INTER-PERSONAL RELATIONS CENTERING IN THE ACTIVITIES OF A COLLEGE PERSONNEL OFFICE BOARD OF TRUSTEES



The activities of a college personnel office are almost entirely non-authoritarian. Some of the many types of relationships with others are:

**** Co-ordinate conferring (e.g. with Deans & Faculty).

----- Receiving Miscellaneous information.

..... Direct brief contacts with students (routine) in assigning faculty advisors, or for office records.

..... Referred students, for special assignment to clinics, including probation cases (involving required reporting).

;;;;; Voluntary contacts with students wishing jobs (or financial aid).

,, , , , Contributory activities (pamphlets, talks) for incoming students, or directed to journals.

or more men felt they should have chief responsibility, or concerning which there was doubt and no one wanted jurisdiction. But the charting sharpened up certain issues, and the result was a far clearer separation of duties. Trouble always arises if a dominant ambitious young person begins to usurp some of the functions not very well handled by an older man or woman who is not keeping up to date. Who is right, for example, if a sales department official becomes concerned about the fact that he is told to sell at higher prices than close competitors, and begins to handle his own cost accounting in a different way—perhaps more efficiently—than the cost accountants? What person in a large bank, or college, or social work community house should act as a public relations expert talking to outsiders, and constructing news items for journal or newspaper distribution? In many cases the primary problem of a chief executive will be to untangle competitive overlapping.

Administrative Functions

Just what is administration? Should we place this function in a new and entirely different field, or is it merely the sum total of all the activities we have suggested? Dr. Daniel Starch in his "How to Develop Executive Ability", cites many of the activities involved in administrative and executive work, and would doubtless agree that executive work implies the ability to assume several different roles to different associates. To administer means primarily to serve a person or an organization; to serve any organization requires the inclination and ability to keep it running smoothly. In some cases this requires direct management of the conduct of others—e.g. requirements of clerks and other assistants. In other cases an administrator must co-ordinate with other administrators, either by mutual agreement or in committees. The administrator is often called to give advice, as an expert to groups within the

organization, or perhaps to outsiders. In other words, his activities are multiphasic.

"He is a good man, but doesn't handle details properly," is an occasional comment made about administrators. "He keeps everything running, but does not get on well with his associates," is another comment of a very different type. "His machine runs as smoothly as a top, but always in complete subjection to his wishes," is still another remark. These are all variable requirements in a medley of social obligations. They indicate that the good administrator must:

1. Keep in mind all the main details and keep everyone busy in their correct channels. Proper timing of duties becomes essential.
2. Maintain amicable relations with other administrators around him, or with committees and boards who set policies for him to administer.
3. Develop an advisory attitude so that subordinates take suggestions from him but have considerable freedom of choice in their methods of work, and even in the type of work they do. This has been called the morale function.
4. Retain an inquiring mind for new surveys or research. "I want to know why" should be a constant attitude, whether he is talking about sales differences between cities or the cause of juvenile delinquency in a locality. Hence he should know something about the techniques of inquiry.

These four requirements corresponding to the co-ordination found above are all aspects of administration. It is true that the amount of attention placed on each will vary. In one office the primary object is direct management of activities and people according to rules. There may be little need of further associative activity, and little chance for research and survey. In

another office, largely of the exploratory type, the actual routines may be few indeed, whereas the main duties are to explore and then to advise others. This is the normal status of a college personnel office, where outside labor demands and college curricula are both in continual change.

Executive work is chiefly differentiated from administrative work in the amount of emphasis placed on imaginative exploring, research and survey leading to planning. As suggested in the documents* concerned with civil service in this country and in England, the executive should be more broadly trained, and an all around able thinker. But above all, he must have that imaginative spark which is often lacking in the good administrator. He must "see the finished product long before it is made," as Henry Ford did his millions of automobiles while his competitors were envisaging hundreds, or perhaps thousands. He must have a feel for what the public wants, even before the public knows those wants, or he can imagine changes in the social order, or in ways of living that are different.

The relation between a good education and this imaginative power can be exaggerated very easily, since there are many high grade executives who dreamed vast changes in production and merchandizing without even a high school education. However, it can be easily underestimated. Several studies of recent date—in our more complex socio-economic society—have shown that the majority of successful executives have very good vocabularies and are college graduates who have been intellectual and social leaders on the campuses of the country. The ability to explore accurately means the use of business data, some knowledge of accounting and of price fluctuations, or else enough intellectual power to read up on these matters when they are important. Educated men may be "academic"

* Leonard White, "Government Career Service."

and visionary; but they also tend to have greater insight and scope in their thinking.

Promotional Possibilities

As we have suggested before, an occupation which includes in its description the strong implications of probable advancement to new functions becomes automatically a different occupation. Executives have become clearly aware of the motivating power of a presumed line of promotion. Not very long ago a bank teller's position, for example, was regarded by many as a dead-end job. The only man who got beyond the "monkey cage" stage was the "old man's" son or nephew, and he might even skip the teller's job entirely. In the modern bank of any size there is now understood to be a normal line of promotion for any worthy employee. He may advance to Assistant Manager, then to Manager of a Branch; or he may become an Estate Officer, or in charge of the Credit Department or some other functionalized office of the bank. Often the promotions in a bank are considered insignificant, and to some extent artificial—merely changing the names of jobs, rather than their basic content—but as a professional field, banking as a whole has been elevated because of the fundamental principle that every man is at his best when he hope for advancement.

There are several ways of providing a promotional atmosphere. The lawyers have hit on a very important step between the position of a clerk and that of a junior partner in a law firm. When a senior clerk who has been in an organization three or more years can have his name put on his office door, he has gone a long way. Then again a lawyer or young doctor may be admitted into a special closed club, or invited to participate in some lectures in a professional school or clinic. The mere recognition, by older men in the field, that he is be-

coming an expert in some branch of his profession sustains his hope for full acceptance as a worthy practising expert.

Promotions in salary or in wage rates are of course the most common devices used. W. D. Scott in his book "Influencing Human Behavior," suggests that even this method can be made more significant through appropriate messages of congratulations and praise for past work well done. In one fairly large industry every salaried employee who received a promotion was also sent a short but sincere note of congratulation. The raises were usually not large, but as the junior executives remarked "it certainly added to one's sense of loyalty to the old man."

Another common device of indicating a promotion in status is to invite a younger man to join an important committee, and later on as he is more mature and familiar with company policies, to head a sub-committee. The temperament to fit into the discussions of a really important committee is not too common, but probably far more important for many occupations than intellectual brilliance, and is worthy of recognition.

Again a man may be given special tasks—papers to report before committees or other groups in an office, a survey concerning the distribution or the methods of manufacturing a basic article. If a man is given an extra long holiday so that he may prepare a special report, if he is sent to a convention, or across the country to interview an expert in another plant, he is thereby promoted.

If a man grows up occupationally in an atmosphere of probable advancement, and necessary interrelation with other functioning administrators, any one of whom he may be asked to replace at some future time, he is more than ever likely to understand the other man's point of view and to co-operate closely with him.

The Whole Picture

A good picture of occupational families, of co-ordinations and co-operative relationships, helps a person see the main purposes of the industry as a whole, or a social-educational organization. A very able secretary in a social service centre was describing to some friends a new boss, compared to a much older man who had taken a position elsewhere: "He is quicker, and he knows more about technical terms; but he is woefully lacking in the ability to get the most out of people around him. He doesn't seem to see the main reasons why all of us are here; he is too emotional and personal in his reactions, and not objective."

Objectivity has many great advantages. It is the only business-like way of handling people who are working towards common goals. A clerk should not have to work for several hours "because his manager wants it done," but rather because the activity has meaning. It fits a larger picture of service and efficiency. Being objective helps one to get away from jealousies and other conflicts which disrupt human relations. Bertrand Russell in his "Conquest of Happiness" points out the disintegrating effect of these petty emotional attitudes which afflict nearly all of us at times.

In summary, then, it is very desirable for all of us to know where we stand with our jobs, to chart out with an associate or a superior those functional relationships which we must preserve with fellow workers. Often a complete chart of varied contacts may be useful. We should know with fair definiteness in what respects we advise, confer with, take orders from or just get on with, each of those near us. Sometimes these relations can be strengthened if they are handled with tact; sometimes, if there is friction, they must be clarified by a superior and perhaps to some extent explicitly altered.

WE have been leading up to this discussion of open or undeveloped occupations because it has bearing on what men and women can do in concrete terms, and also because it should suggest new types of jobs. The dozen fields here mentioned are only symbolic; they happen to have impressed the writer as interesting and vital areas of occupation in which high social and technical efficiency is rare. I will try to show that if men could prepare for the higher forms of social effectiveness they would not replace others, but build entirely new kinds of jobs, just as the supervisor of a set of chain stores does not take the place of any of the store managers, but provides a new type of foresight and purchasing direction.

Advice is often given to young people, "Look into occupations which are expanding; turn away from those jobs where fewer workers are needed." In fact, many regard the availability of jobs as more important than the aptitudes one may have. It is possible to catalogue occupations according to their past development, based on census reports. For example, if one studies the United States census reports of the last three decades, making some adjustments for the reclassification of job headings, one may derive lists such as the following:

- A. Occupational and industrial fields showing considerable increase in employees over the past thirty years, even in proportion to the total population.

Accountants and Auditors

Chemists and Chemical Engineers

College and High School Teachers

Editors and Reporters

Food Processors

Electrical Power Workers

Mechanical and Industrial Engineers

Medical Technicians

Nurses

Paper and Allied Industry Operators

Printers and Publishing House Workers

Radio Announcer-Dramatists

Trained Business Specialists (Statisticians, Purchasers,
Credit Men, Cost Accountants, Economists)

- B. Occupations showing little variation in the last twenty years, in proportion to the total population.

Advertisers

Dentists

Doctors

Insurance Agents

Lawyers

Pharmacists

Salesmen in general

Undertakers

- C. Occupational areas showing reductions, or tendencies in this direction.

Civil Engineers

Farmers (Non-Scientific)

Furniture Makers

Ministers

Real Estate Operators
Veterinarians
Railroading Workers
Telephone and Telegraph Operators
Skilled Trades (e.g. carpenters, masons, plumbers,
tailors.)
Workers in Cement, Glass, Tobacco, etc.

But to ignore occupations under the C list would be fallacious. Although there may be fewer ministers, actually there seems to be a great demand for the higher trained types of ministers. Similarly although there are perhaps fewer real estate offices than formerly, there is a strong community need for a well qualified realtor, who is community planner as well as a salesman or manager.

Furthermore, demands for workers vary considerably depending on the part of the country and the particular year. In depression periods the average architect or sales-promoter is very hard hit, whereas a return to inflation may bring a real demand for both types of specialists. A country store-keeper, however, is never really out of work unless he sells his store. But there is little room for development since he is restricted by the area and population of his community.

The occupations we are considering are for the most part somewhat off the beaten track. They would not all be included in the above lists. Most of them would be regarded as unessential until they have been tried out.

An open occupation is not always evident unless one looks around in other localities. In one city, for example, there may be no guidance system for high school children, no central office from which students can request information about jobs and college courses. The job is open or unfilled, even though the citizens of that city have not been fully aware of the fact. Their eyes would be opened if they went to another city in

which a guidance system was operating with reasonable efficiency. For obvious reasons, therefore, jobs will be open in some cities and not in others, in some countries or decades more than in others. Public health is a leading professional field in Canada but undeveloped and frowned upon by some members of the medical profession itself in this country.

Jobs are open sometimes because people have never been waked up to their potentialities, sometimes because of lack of education and skill on the part of normal workers in the field. In a few cases politics or religion or hard-boiled economic traditionalism may interfere. In many quarters of this country, for example, civil service positions are disparaged. A civil service worker is spoken of as "running to the government for protection," or "getting a soft job." Attitudes of this kind may have prevented the high development of career government service by the outstanding brains of the country. Actually these various social attitudes change a good deal from month to month, and from one part of the country to another. The National Youth Administration was set up to take care of the problem of supervising unemployed young people. For a long time it was disparaged by some rich and some educated people alike as a nuisance and thoroughly undesirable, a means of teaching the young to be lazy and to exhibit a show of employment on artificially developed "made work." Others who were better informed regarded it as a great boon to foot-loose and discouraged young people.

Many jobs are waiting for men and women of vision, people who can look beyond the present into a different world. Perhaps they have dreamed and talked about a more beautiful city, a better educational system, an effective method of business co-operation, or continuity of employment in a particular area in the post war era. Oftentimes these men do not have to be experts or highly educated, perhaps not even very in-

telligent. But they must be persistent and usually are individualists, not too easily swayed by tradition and the crowd ideas around them. Oftentimes they have travelled extensively and come back from a foreign country, or different city, with a "big idea" which they feel should work in their home towns.

Typically, three stages mark the decided upgrading of an occupational field. Not each stage is equally emphasized by a particular individual and there will be decided differences in the uniqueness of development in particular fields, but in one form or another each stage will be represented.

1. **The Image Stage.** Above all, at the start a person must have some ideal desire which craves satisfaction. It may occur in the form of a dream or a quick flash while one is passing from one thought to another during the day. Usually this image will satisfy some strongly felt need and will be followed up with impulses to act. One school social worker dreamed an image of a society in which it was easier for a cripple to get a job than for the average person. In her community she brought that idea to life. Even a feeble-minded boy was easier to place than a normal child since this image of protective industry was established as a social obligation among employers.

2. **The Exploratory and Try-Out Stage.** This may assume several forms. It may be purely mental elaborations of one's image, thinking over just how it will work and how it may affect other occupations. It may involve reading about new developments somewhere else, or actual visitation of other communities. Or it may be that one will want to set up a small experiment of his own, or again, one may begin to gather statistics on what has been happening, and on changes over the past few decades and in various communities.

3. The Expert Stage of Cumulative Study and Experience.

Again one may emphasize different ways of becoming an expert. One scientist collects records of controlled research in the laboratory or library, fitting together the theory and conclusions reached by many scientists or other writers. Another man wants to start fresh with his own experimental laboratory and may develop convincing results of his own. But each man ultimately becomes the responsible authority for development in that field. He, above all others, knows what can be done and how to do it.

Many people ask "but what does the position pay," or "how can a person get such a job?" The answers are relatively simple. First, one's income is and should be secondary if he is rendering a real community service and if he is enjoying his work. The first industrial scientists worked for practically nothing, as did many social workers. Ultimately, when their contributions to society in vision and hard work are understood, people begin to receive proper compensation.

Secondly, one does not get such jobs. One makes them himself. When statisticians first began playing around with stock market figures there was no job there, but when Babson found that he could actually predict many of the changes ahead of time, his predictions became very valuable and hundreds of investors were willing to pay handsomely for his services. He and some others opened up a new and very important area of occupation by diligence and mathematical shrewdness.

The occupational fields we are describing below are, therefore, not in the slightest, routine or stereotyped. They may start out in a very one sided fashion. Somebody has an idea, rather vague perhaps, but with promise of a future. As he works at it, new angles develop. Perhaps some phase becomes very important which he did not at first consider. A person

who makes his own occupation is much more irreplaceable than one who merely fills a job which has been carefully outlined.

Recreational Leadership

An extremely important and often neglected area of administration is that of community leadership of recreational programs. It is true that we have been paying more attention to various outlets for young people: tennis courts, baseball diamonds, golf courses, swimming pools, and bowling clubs have grown as never before. But a good deal has taken place in haphazard form, and in one part of a city much more than in another part. Often the primary aim has been commercial—to make more money—without the perspective of benefit to the community.

The regulation of juvenile crime and inadequate recreational facilities has been studied and proved beyond a question. Put handball courts, a baseball diamond and other play apparatus into a crowded area, and the response of the children is always such as to take off steam and reduce resentments and unlawful acts. In one city the development of a series of Boy Scout meeting places in a "less chance area," with some slight supervision and athletic facilities, reduced juvenile crime by more than fifty per cent. Thrasher, in his study of gangs in Chicago, found that nearly all vicious gangs originated in crowded districts where boys were constantly being chased out of lots and streets in which they were playing.

Urbanization, constantly on the increase in America, means that people are paying less attention to the exercise of their large muscles. They use automobiles or street cars, and neglect enough exercise to keep healthy. And yet, in many cities there are sizable parks with very few facilities for exercise and play. In one large park there are "Keep off the grass" signs, and no paths to walk on. Apparently the lawn is merely

to look at. In some districts picnics are consigned to dismal and unkempt areas, and therefore thoroughly discouraged. In one large park there are several tennis courts more than a mile from the main population area near the park, and only one lone tennis court on the edge of the park nearest the population center.

Recreational leadership calls for the presence of space and some apparatus; it also implies various ways of encouraging new forms of play, and teaching people how to indulge in it. For example, cement handball courts are not too expensive to construct, even with wire backstops and one side wall. If these are in the neighborhood of tennis courts, children can quickly be taught to practice use of the racket with a kind of squash ball, using handball rules. There are numerous games which are played occasionally in one part of the country which can be easily transplanted in other parts. For instance, a pin ball game, in which each side tries to knock down a bowling pin (or medicine club) guarded in a circle of two yard radius by the opposite side, has the great advantage over basketball of allowing almost any number of players to play on a side, at least from three to seven or eight on a side. It also requires less skill than basket throwing. It is very popular in some cities, completely unknown in others.

A campaign of publicity is part of a well developed recreational program, so that each family can be informed of opportunities which are available, and also so that it will be supported by taxation. Among other opportunities, some attention might be given to remedial classes for those who are overweight, or need special kinds of muscle development. Above all, the publicity must be of the optimistic morale boosting type, never suggesting compulsion. Community exhibitions and municipal league contests could be made attractive for onlookers,

and also might stimulate many to try out the same sort of activity themselves.

A recreational leader might be attached to the public schools system, or possibly closely tied up with the park system in a community; better yet he should be a directing force with his own office, hired by a city council and in close co-operating contact with the park system and the schools. Every new play area should receive his support, and a budget of several thousands of dollars allotted to him for expansion and renovations. Money spent this way by any city would be cheaply spent in terms of reduced crime, increased health, co-operative team work and morale building.

Upgrading should be largely in the field of physical education. But some attention should be given to general problems of city planning, to juvenile delinquency, to publicity techniques, and to the social psychology of the crowd. Above all, a man or woman in such a position needs to be a natural leader, training for which no school work will guarantee. Experience, optimism, and an attitude of service are essential.

The Safety Expert

The field of operation for the safety expert is almost unlimited, and many types of men may become interested and expert in reducing accidents. We hear most about safety engineers, and they are best equipped to deal with safety problems in industry proper, since a part of the engineer's training is to understand machines and the installation of guards to prevent accidents. But even in industry some safety experts are far more inspired with new ideas than are others. There are also traffic safety men, mainly police officials; there are accident control experts in aviation, and also insurance statisticians whose main function it is to classify accidents and make clients aware of the causes of accidents.

In the city of Evanston, Illinois, the problem of automobile accidents was attacked by a journalist who began studying the major locations of accidents, and types of people injured. He found many of them were young children, and that only a few areas of the city were responsible for the majority of accidents. The obvious answer was to provide more safe play districts and also to insist on greater traffic control at the dangerous corners. It was necessary to gain full co-operation of the courts in punishing offenders drastically, no matter who they turned out to be; and to hold policemen directly responsible for all violators of traffic laws. To a large extent the technique of attack on safety was a publicity approach through the newspapers, to make everyone alert to safe driving, and it worked. In a few months a radical reduction had been made. Evanston was changed from a dangerous to a relatively accident-free city.

In every large city there are several opportunities for careful students of traffic. Rarely, however, is a competent man given full freedom to develop safety programs. Political appointments or budgetary restrictions usually interfere.

In another area of accidents, in connection with aviation training fields, the chief initiator of accident control was an officer who was also a psychologist, whose only previous qualification was that he had run an experimental laboratory and knew the methods of science. He learned the mechanism of flying an airplane and how accidents could easily be made. He spent a month talking to mechanics and pilots. But above all, he suggested a board of study of all accidents, no matter how small, every one of which must be reported. A serious penalty was imposed by the commanding officer for not reporting even as simple an accident as a blown tire. Immediately the number of accidents went way up, as reported, indicating that previously many accidents had been completely

ignored. Every one involved in an accident was interviewed and questioned very closely, as to how he landed, and any mechanical or human failures. The result was a reduction by more than fifty per cent in the number of fatal accidents, within a few months time. Above all, every important officer had been made truly accident conscious, and was for the first time determined to reduce the rate.

Often in the process of making an image work there needs to be a publicity period. The idea must be clarified and reiterated in order to arouse general public enthusiasm. This is quite important in any accident reduction campaign and is a large part of the exploratory and later expert stage of safety management. Even skilled mechanics, for example, are not enthusiastic about safety devices on machines, if they cut down speed and earning capacity. Fortunately, neither of these is likely to happen; speed is normally increased when guards are constructed at danger points, and earning power correspondingly improved.

The methods of up-grading safety management to the point of expertness can include emphasis on theory and research, or on practical skill. Types of exploration and research can be summarized as follows:

- a. Thorough training in industrial engineering. This degree training is doubtless the best background for safety work in industry, since one should know a good deal about machinery and its operation by people.
- b. The experimental laboratory. Psychologists or engineers may conduct such a laboratory. In Chicago the rate of serious accidents among taxicab drivers was greatly reduced when a trained psychologist developed tests to detect accident prone drivers before they were hired. Similar testing laboratories have been constructed for street car motormen, and many others.

- c. Minute statistical analysis of accident causes. When the place of recurring accidents has been determined, one may analyze carefully just what difficulties arise.
- d. The publicity and educational side of safety work. Some of the best work in safety has been done by advertisers and public relations experts.

The Police Detective

In a city in the United States about two per cent of employed men will be in the police force, and nearly all of these will be in uniform rated all the way from rookie to captain of police. The commissioners and some others are usually not uniformed men. The bulk of policemen today are engaged in fairly routine check-up work, in connection with patrolling sections of the city night or day, or in handling traffic. A few, however, are in charge of detecting criminals and studying the conditions which breed crime, or in the process of bringing the criminal to justice. In some communities, unfortunately, these men who have to do most with criminal behavior are the older men with most time service in the department, and not necessarily the best fitted—the more intelligent and better educated. In fact, in two large cities the intelligence test scores of this group was below the level of the regular policeman—largely because many of the brighter policemen tend to drop out of public service, entering legal or business positions.

The F.B.I. has shown that good education and a careful selection of men pays large dividends to society. They start their men well over \$4,000 normally, and run to over \$9,000 in the civil service areas. Hence they are able to require a legal training, the background of an expert accountant or a graduate college degree. State and municipal positions in the field of crime detection have been influenced to a slight extent by this upgrading in the federal service; in a few cities experts have been hired, or a few men sent to crime detection schools

for short training courses, but by and large they have not been offered the level of salary to attract and hold high grade men.

Some of the fields of advanced study and specialization are the following, any of which can stand a significant amount of scientific or legalistic training:

1. The scientific collection of evidence and of methods of identifying criminals. This should include the ability to take good photographs, and supervise micro-photography, or the enlargement of impressions and minute identifications, and the collection of relevant clues found in connection with the environment of a crime. Bio-chemical analysis may become an important means of identification.
2. Preparation of a criminal case, with the ordering of evidence, for a police court or a jury trial. Oftentimes a crime has been detected without question of validity by police officials, but the case is so poorly prepared by the crime department that clever lawyers on the side of the criminal can distort and muddle the police in charge of the trial. A fairly thorough training in criminal law is being advocated, so that competent men will deal directly with lawyers and journalists.
3. Lie Detector operators. Here is a new field which is promising great results, and which can be so badly handled that it may distort rather than aid justice. Several studies have indicated that at least two kinds of experts are needed working together, and that the team work that is required is rarely possible because of lack of training and background by one or both members of the team. One man should be well informed in the field of emotions, and physiological psychology. A physiologist or psychologist could set up different types of apparatus, watch several variables of pulse, breathing, galvanic reaction, and the like. The other expert could be one who has long experience in questioning the

criminal or suspect, drawing out pertinent facts, relating them to incidents or articles thought to be connected with the crime. Whenever a "clue word" was mentioned the physiological psychologist would be given a signal for special analysis of the bodily rhythms at this time. At the present time, many police lie detectors are operating with completely inexperienced men so that the main technique they have is bluff.

4. Finally a new type of police specialist is on the horizon, one who is an expert sociologist of juvenile problems, a man who knows the hangouts of gangs, and the breeding spots for criminal careers. These men can often be closely affiliated with the Boy Scouts or the Y.M.C.A. in their interest in "less chance" areas of the city.

All of these types of expertness can hardly be expected of any one man in a police system. In some cases individuals will be assigned to the refinement and specialization of one variety of expertness only. However, there is an important place for men with broad training—at least the college level of sciences and social science background—to take positions of supervision and leadership in coordinating these various specializations and evaluating the results brought in by them. Too frequently the men who are on top are ill equipped, having reached their positions through seniority rights. Here is a great empty field for enthusiastic civil service experts. They must not be politicians, but of the level of professional workers, paid at least \$5,000 when experienced. They should have under them promising young men who can be sent off for periods of three to twelve months for specialist training, in part at the expense of the police system itself, in part at the trainee's own expense, so that the A.B. or M.A. degree in some field or other could be earned. A few universities, e.g. Northwestern Uni-

versity, have already established training centers for police officials in the field of crime detection.

The proper development of the high grade expert in the criminal field requires special reorganization of police systems, through civil service examinations and educational upgrading. At the present time fair initial salaries are paid to young policemen in many of our northern cities—\$2,000 or more per year—but very few are able to advance much beyond the \$3,000 level reserved for captains and a few others. As a result the abler members of the force become discouraged after a few years and are likely to accept business offers. In one case a policeman came to college vaguely hoping for an outlet that would be more stimulating for him. He felt that he was in a straight jacket where every act was prescribed, and no advancement likely in proportion to merit. This man was given a thorough mental examination and found to be in the first one per cent of a college entering class in ability. Later he passed examinations which led directly to officerships and rapid advancement in the army air corps. On his return from the army he immediately took up further legal training on which he already had a good start.

Excellence in character, as well as a good mental capacity, is in great demand. The opportunity for bribes, for illicit connivance with outside criminal rings is ever present. A great need of a social conscience and stamina in holding to ideals of truth and justice should be obvious, but are often glossed over in the evaluations and promotions of promising men.

Work Training Administrators of Young People

During the depression of the nineteen thirties there was a great need of supervisors of young people to manage the National Youth Administration units in the various cities. Here were hundreds of thousands of young people who had dropped out of school and for whom there was no work; they had to

be kept off the streets and preferably given work and educational experience which would make them fit for earning a living when the time came, and also tone up their morale and their belief in the democratic spirit of fair play for all. But where were the leaders in every community to take on this responsibility? Even at the end of the depression only a few really capable men and women had emerged, and they for the most part made the difference between successful and unsuccessful N. Y. A. activity. With a good administrator the morale was high, teachers and work supervisors were enthusiastic and young people eager to learn. With poor administration, inadequate choice of supervisors, the play of narrow political influence, over-staffing in some areas, mismanagement of funds and other forms of corruption began to appear; and consequently, the N. Y. A. was judged by some citizens to be a failure.

According to several community surveys, e.g. the New York State Regents survey of the nineteen thirties, there is a continuing need of a part-time program of work and study for a large proportion of young people beyond the age of 16. Many young people are not academically minded, either because of low intelligence or because they have never been stimulated by school work. A program of part work and part educational training, mainly of the shop variety, has been widely advocated. Some industrial managers have said, "We want young people who know what factory work is like, and can put in a full eight-hour day without fooling around."

Whether this attitude of management is primarily a matter of education, or one of work morale and character development is still a question, but some compromise between shop training and work apprenticeship seems to be desirable at all times.

Above all, the occupation of youth supervisor calls for a high degree of imagination and exploration, as well as a sense of social justice. The large masses of young people who were out of work during the depression had no opportunity to understand work. The depression was in no sense their fault. The great temptation for the average community is to find some administrator with a particular political leaning or one who is out of a job, and throw him this N. Y. A. job as a sop to keep him and his friends quiet for a while. They will say to him: "Look at the chance you have to fill up supervisory positions with your friends and political henchmen." Exactly this sort of thing was done in a few cities, to some extent in all. The greatest difficulty of all was in lack of training in supervisors, which also included lack of foresight and genuine lasting interest in the work. Too many men and women took the job as a stop-gap, hoping to advance to something entirely different. Many were down-right lazy, a few corrupt.

Some of the varieties of background, which would have up-graded the average N. Y. A. supervision to heights of social administration rarely even approached, are the following:

1. A thorough knowledge of present day education at its best. Some understanding of the progressive movement, and the individual project type of training in shop and library. Often if a student is individualized and given a separate challenge and goal apart from the others, one in which he is watched for what he himself can do, he will learn more than in the average school.
2. An interest in the vocational education needed in the community, found on the basis of surveys and contacts with many types of individuals—union leaders, employers, vocational trainers, etc. One should have a grasp of the kinds of skills most needed, and those which can be taught with least trouble.

3. Good administration, including the vision to select good personnel aides. In some centers modern testing techniques were used quite extensively, comparable to their use in the army; in others these devices were completely ignored.
4. Interest in and attention to personality building in many young people. Surveys have shown that many people fail in their employability because they do not make good impressions. Actually educating people to be neat, not to chew gum in one's face, to finish tasks which are assigned them, seems elementary, but needs to be done.

Psychological Expert in Industry

Somewhat closely related to the administration of young people is the work of the psychologist trained as personnel expert in industry. Unfortunately the term personnel work has come to be almost meaningless since many white collar workers—e.g. O.P.A. supervisors in war plants—have been called personnel workers, perhaps to make them feel more important.

Roughly speaking, of course, every individual dealing with the supervision, or analysis of abilities and attitudes of others is a personnel worker, particularly when it implies individualized techniques. There seems to be a growing need for specialists in the use of psychological technique and here and there they have been used in employment or in training. It is when a plant becomes large and impersonal that individualization is difficult, if not impossible. In some cases the supervisors or teachers have not the time to know everyone under them properly; in other cases they are not qualified by training and temperament to be personnel workers.

The primary functions of personnel work in large industries can be summarized under the following heads, often not organized under one office and individual, but as a rule subject

to top supervisory control by a vice-president or an important executive.

1. Hiring the worker. Employment is usually thought of first among the functions of personnel work, and implies a thorough knowledge of the type of work to be done in the organization, and also the kinds of people who are needed, and how to get hold of them to best advantage. A part of this work can be thrown under just good common sense and broad experience. However, the up-to-date psychologist has a store house of testing and evaluating techniques that can be very useful.
2. Providing for the training and supervision of the worker. The amount of training to be supervised would depend upon the plant or office, but very often it is neglected entirely, to the serious detriment of worker and industry. Sometimes this supervision and training can be done very easily under a lead-man or foreman. At other times, an incoming worker needs to be given separate instruction in a class, or work-shop, but it should not be taken for granted. A worker in this aspect of personnel work should be aware of the techniques of teaching, established over a long period in the field of educational psychology. There should be an appreciation of the values and limits of general education and of the various methods of industrial training, e.g. the vestibule method of instructing young workers.
3. Closely related to supervision and training is the problem of morale and worker attitudes. Often this is not considered a part of the personnel job, but is actually a fundamental aspect of all executive management of people, perhaps the most important of all. Morale building, or its retention, is in part a matter of providing for vacations, holidays, and leaves; in part it has to do with the problem of

promotion and wage-payment systems. In part it may depend on recreational and educational facilities provided by management. Walter Dill Scott enunciated a principle many years ago which is everywhere accepted now: It is not what you pay, or require of the worker, nearly so much as how you pay him, and how you ask him to do it, that counts in the spirit of the worker.

Above all, morale is a by-product of the spirit of fair play. It is illusive, since a very direct approach often misses the mark. Sometimes industries which have talked most about morale are not as successful with it as those which do not seem to have an elaborate program, but are honest and democratic in their dealings with all workers.

Morale is basically a problem of social psychology and philosophy. Many investigators have studied broad social movements or advertising campaigns for the purpose of analyzing the causes of high morale. Men do not work hard merely to be rich, or to escape pain. They work together co-operatively, and with amazing fidelity and purpose when certain conditions of human cohesiveness are established. Sometimes these conditions are established for a short time in the form of a cult, but may not stand up to outside assault or criticism. Permanent strong ties of faithful effort can be developed if the conditions are well understood, and if executive management is alert. This suggests a thorough knowledge of labor unions as a definite asset, but also some understanding of attitude analysis, and other branches of social psychology and sociology.

Types of training and background for Personnel Work in industry might include the following:

- a. Some appreciation of time study and job analysis so that a man can make estimates of methods of improving certain jobs through proper incentives. He should be able to

correct the judgments of foremen who say they need one type of person, when another type would be more profitable for the firm and to the advantage of the individual in the long run. Several studies show that very bright workers are often less satisfactory for many jobs than those with inferior ability.

- b. Psychological insight into individuals, through personnel testing and other evaluations. This does not mean that mental tests would be used in all cases, perhaps only rarely, but that an expert could judge fairly when they are warranted, and not fall for charlatan techniques which flourish in many quarters.
- c. Study of multiple evaluations of personality, which means that one is an expert at the interview, and in the cumulative card records of a man, in utilizing recommendations and data about a person's past.

In general, professionalized personnel work has the possibilities of unlimited expansion in American business and industry. In one organization a good deal of attention may have been given to a development of one or possibly two of the above three areas, with limited attention to the other. In very few plants have there been broad gauged leaders with training and idealism and imagination in this very important field. In the future it is likely that chief executives will come more and more from this field, since the wise handling of workmen is at least as important as the wise handling of machines.

Industrial Marketing

This area of activity goes by several names. In some plants it is called "sales engineering," in others "sales development work," although the emphasis in the latter term is somewhat different. In general the main function of the industrial marketer is to investigate the market for goods which a company or community can make, and get orders so that the

people in that area can be kept profitably busy. It may be narrowly conceived, i.e. to make quick profits temporarily for the management; or it may be socially conceived, to develop a long term trust in a particular product, and in a company which manufactures it. In other words, the community of workers can be given jobs in spurts, when prices are high and profits big for the manufacturer but most of the time kept partly idle; or they may be given steady employment at reasonable incomes.

This type of work received great impetus during the early months of the war, due to the practice of sub-contracting. Every community was asked to do its bit for the war effort, and leading citizens began to survey the possibilities of manufacturing some part of an airplane or tank which could be fed into a larger plant for assembly. Envoys were sent to make these arrangements, and they often were successful far beyond the dreams of the towns concerned. Small shops grew up overnight; others expanded. Men and women were given day and night shift jobs, and the entire community became prosperous. An interesting aspect of this development was the dual motivation of patriotism and community need. In many cases, the actual salesmen were town mayors or professional men without the primary motive of quick big profits for themselves.

The success of small sub-contracting firms was of course variable; in some cases, the work done by small plants was below standard, and had to be refused by inspectors, because of carelessness or lack of adequate machinery; in other cases, however, it proved highly satisfactory and efficient. In one relatively small industry operated by a former garage manager a profit sharing program was formulated and expert mechanics were brought in to run departments more on a cooperative basis than under a dictatorship. The result was that even the lower paid workers were making \$1.50 per hour. Said a part

time worker, who was also going to college, "You see, we are so much more efficient than the large plants that we can produce material at about two-thirds their expense. When we work, we work, each man for the good of all."

According to Peter Drucker in a Saturday Evening Post Article (April 22, 1944) this extension of manufacturing to outlying districts is a world wide phenomenon, including Canada, Australia and Argentina, to say nothing of Germany and all English-held territory. Australia was even calling herself the Pittsburgh of the East. This small industry urge may forecast a significant change in world economy, and the outlook of agricultural regions. No longer is it necessary for people in agricultural countries to think that they cannot produce many of their own consumer goods. Even the production of capital goods—steel, electric power, etc.—is being stretched far beyond the old confines.

The picture as painted means the need of men who can market goods. They may do it by subletting contracts with larger firms; they may set up their own small industries. But, in the opinion of Drucker and others, the once isolated non-industrial communities have felt their oats and will not take it lying down any longer. Where armament parts can be made, automobile or refrigerator parts can also be made, unless the heavy hand of private monopoly interferes. At best such merchandisers are technically trained scientists or engineers, but often it turns out the scientist does not make a good salesman. He is likely to be over on the introvert side in his personality make-up, preferring not to play up his work or even to talk about it optimistically with others. Although a technically trained man is very necessary in highly specialized science —e.g. radio tubes—he may not be necessary in many forms of industrial merchandizing. Many college graduates with one or two courses in chemistry have sold rubber com-

modities, even factory belting, on the basis of preliminary training in the type of goods available and variations in quality to match needs.

Above all, the industrial merchandiser must have not only a good personality, but also a detective inclination. He must always be on the alert to see how his company's products can be used somewhere else, or how his community can modify their product to fit it into a larger industrial program. Often the same industrial merchandiser will attempt to take care of contracts for a number of factories, or communities, but the danger in this concentration is the feeling that will grow in any locality that they are being ignored in comparison to other communities. They will want to do business directly.

The types of specialized upgrading for this kind of very remunerative work (if it is successfully performed) are as follows:

1. Thorough background in business organization and production management. Sometimes that can be satisfactorily acquired through experience; usually however, any man's immediate experience is so limited that he will fare better through general and special forms of education, including general economics and courses in production management. He should also understand the business cycle and price fluctuations, and have a reasonable knowledge of accounting, including cost accounting. Many small companies have failed, according to several reports, merely because they quoted prices without proper cost accounting.
2. Mechanical or chemical engineering, with special emphasis on machinery for small parts and their assembly. This background may also be picked up largely through experience, but far better with from two to five years of collegiate training in shop work and laboratory.

3. A background in marketing and advertising, including considerable insight into how customers are approached, how to influence them in all kinds of indirect ways as well as by the direct approach. Often a campaign of correspondence and personal contacts must be designed with several officers of a large firm.
4. A good sales engineer is a good contact man. He "gets around", and can usually call a great many of his associates by their first name. To talk the language of important executives usually requires a good vocabulary and above average intelligence and education. In other words, a good merchandiser is often a good reader who is up to date in his information on world events, and business in general, as well as concerning his particular specialized products. Often a merchandiser is a good recreational mixer. He tells good stories, golfs and plays cards with the right group. But above all, he must be trusted; he must be sound in his thinking, and fair in his games as in business dealings.

No merchandiser can expect to have a thorough background in all the areas mentioned above. He should, however, appreciate or "have a feel" for the different types of training and be something of an expert in one respect or another. Traits of optimism, of good will and cooperativeness are imperative for continued success.

Electronic Experts

A man skilled in the field of electronics is of course a physicist who has specialized in one branch of physics, or an electrical engineer. Other branches of physics are Optics, Mechanics, Heat, Spectroscopy, and X-Ray Analysis—each of which has a background of theory and "pure" experimentation, and also many industrial applications. When a branch of physics is turned towards practical uses, and refined in production laboratories it is usually referred to as engineering.

Perhaps the impetus given to electronics is partly due to its war uses, but it began to grow extensively even before the war, as indicated in the studies of the National Resources Commission and reported in Fledderus and van Kleecks' "Technology and Livelihood." It is centered around the vacuum tube and other devices to control electron streams. The vacuum tube is, of course, used in every radio set, and is also the basis of television, and many communications devices. The "walky-talky", used by sergeants in the associated branches of an army to keep constantly in touch with each other and the headquarters, required a radio amplifying device. Doctors have also used amplifiers in the more accurate analysis of heart-beats and other internal sounds. The industrial uses of the photo-electric cell are often also classified under electronics.

As the decade after the last war saw a great expansion of industrial chemistry in this country, so many are predicting a similar expansion of physics in industry, and a great need of trained physicists. If gasoline gets as scarce as many insist that it will, the tendency will be to turn more to battery power plants within cars or other forms of transmitting and amplifying power. Quite probably atomic energy may play a part in this revolution. In fact, the possible uses of electronic devices have hardly been approached yet. The main block at present is in trained personnel. Relatively few men are sufficiently familiar with the theoretical background of electric circuits and electron theory to be at home in this advanced study.

One might speak of three levels of electronic specialists. The lowest level would be represented by a radio repair man, or one who can set up a small sending station through the use of charts or diagrams. He might have had several years experience as a boy, building sets, but would not need any formal education beyond high school. Secondly, there is the electronic engineer, who would be fairly familiar with the

theory of vacuum tubes and could see in industry many applications of well known devices. He might be called on by different departments to adjust amplifiers or electric eyes.

The third level is more advanced, and in it is a great scarcity of men because the field itself is so new—the field of the research physicist, or original thinker in electronic devices. This type of person will usually have a Ph.D. degree. He might be either an engineer or graduate physics student who has a flare for inventiveness, and is not satisfied with ordinary routine application of electronics. He will have the impulse to set up a separate laboratory to try out new variations of old techniques, or can see the utility of some recent experimental conclusion in a current journal of physics. For such a man, a new world of thinking becomes possible. He thinks in terms of alternating currents and electron streams, and the amplification of any sound, or light, is considered as a matter of course.

The up-grading of such men is naturally mainly in the field of advanced physics. Mathematics well beyond the calculus hurdle, which stops many individuals, is also a requirement, especially along with actual techniques in the physics laboratory. According to one man who is an authority in this area, literally thousands of jobs would be available for competently trained men.

Again, it should be emphasized that this is merely one branch of applied physics. Other branches are calling for men with scientific insight and actual experience. From the modern university laboratory a man goes easily into research laboratories of industry. He knows how to keep busy on innumerable problems, and is never satisfied with any final conclusion of a complex problem. Here, then, are many unfilled jobs.

Food Managers

The greatest industry on earth has always been that of securing, transporting, and selling food. The public is most

aware of the first and last section of this triangle, the agricultural and the grocery end. The central section is less well understood, and yet has need for top notch men with unusual responsibility and value to society. Food terminal organizations are looking to the colleges to supply the type of men needed. They want men, first, who know foods, who can inspect cargoes, who are familiar with wholesale and jobbing methods and the problems of shipping with refrigeration or without.

Middlemen in the food business have become of increasing importance as cities have grown, as markets have become separated from gardens and farms, and as food is shipped all over the country and from one country to another. Only two or three decades ago one thought of the areas immediately surrounding a city as being reserved for truck gardens. Now even the most perishable vegetables may be shipped hundreds of miles. Meat is a special problem, since every community must deal with central stock yards, or else other distributing substations for nearly all of its meat, and often must make arrangements months in advance. If the proper routing of meat is not scheduled an entire section of the country can suffer—perhaps because of black market pressures.

The following call came to a college personnel office a few months ago. "We want a young fellow who knows something about the food business. It's a big field, has lots of opportunities ahead. He must know accounting, and a good deal about transportation. But above all he must know a lot about simple foods, when fruit is beginning to spoil, and when vegetables have not been stored properly, and how to get rid of some cargoes quickly. We need a man who can make all the difference between a good profit and a serious loss." As a rule a car-load shipment of some product does not have to be accepted if the food inspector feels it is not in good condition.

Another angle is that of purchasing for large grocery store chains, or for jobbing houses. One man remarked that "It takes a good sense of smell and lots of experience to buy material quickly and not lose a lot of money, and perhaps your job." One executive in the food business has repeatedly said that most boys don't realize the possibilities ahead of the boy who has worked in the grocery store around the corner for several years—perhaps in his spare time. Such a person is said to get the feel of the food business in a way that a man who comes into it later in life finds it difficult to appreciate. He has a marketing sense, knows the kind of food which will go quickly, how to arrange food attractively so that it will sell, and when to throw out food entirely or to get rid of it by special prices. A food specialist must make quick decisions.

Another field for the experienced, well-educated food manager is that of editorial work for trade journals or for house organs which are distributed among chain store agents, partly for information, partly to boost morale. Some of these editorial jobs have gone begging for months because the right combination of writing ability and food knowledge has been scarce. A man who can write but does not appreciate food marketing can make stupid mistakes.

Some experts still insist that the first class, all-round grocery store is a rarity, and that a good man can go into any community and rapidly build up a lucrative business by sticking to good brands. If he understands credit management and accounting and purchasing procedures, he can often take business away from even the better grades of chain stores. This type of food manager, the man who runs his own store, has a kind of satisfaction in controlling an entire organization which many other experts do not have. His work is more varied, and the results are more exclusively dependent upon his efforts. Many

men will work 12 hours a day in their own business with less fatigue than 8 hours a day for another man.

The fields of specialization, for the up-grading of good food managers and experts are somewhat as follows:

- a. Accounting and purchasing information, so that a man can know at any time whether he is operating within a safe margin and how much he can afford to venture.
- b. Transportation costs, with all the variations,—train, truck, and airplane.
- c. Marketing problems, wholesale and retail. A great deal of this background can be picked up through experience with a well run grocery store; much of it, however, can be strengthened through education.
- d. Other experiences may play into the food business, such as a knowledge of writing, advertising, sales-psychology, but above all a thorough, intimate knowledge of foods.

Public Health Opportunities

The field of public health has been neglected in this country as compared with many other countries. In Canada, for example, an appreciable number of medical students are enrolled in a somewhat different curriculum for the last two years of medical training in order to specialize in public health medicine. In this country so much publicity is given to the glorification of private practice, and to the condemning of all kinds of socialized forms of health service, that we have overlooked an area of great service and national interest. Fortunately, the doctors—those with M.D.'s—are not the only people who can claim an interest in public health, and therefore the field is not limited to them alone. In addition there are nurses, dentists, medical technologists, city water-works officials and many other state and local authorities. Above all, for the scientific point of view, there are the Ph.D.-trained research analysts in biochemistry, in parasitology, bacteriology, anthropology, and

psychology. Studies are now available, for example, indicating in just what types of environment, in a large city, one can expect to find the different varieties of insanity or neurotic behavior.

Nearly every branch of medicine, dentistry, and nursing has its public health angle, and yet it is possible for an important discovery to be restricted to the use of a few private practitioners. A public health attitude would lead to the wider dissemination of information for all the members of a community. Above all, there should be central investigating laboratories which could collect the results of treatment from many physicians and others. Greater attention to public health would merely imply an extension of services of large city hospitals, in which much fine public health service is now conducted. But, greater emphasis would be placed on collecting information, on research, and on making the results available for all.

Each locality has its own problems, and therefore such research cannot be limited to national committees, or to foundations, valuable as these have turned out to be in the past. In each city or country there are special problems concerning drinking water, and concerning the soil which in turn affects mineral deposits in the vegetables grown in the vicinity. Then, there are great areas of the city in which infections get started which need special study, often for the purpose of recommending changes in housing, garbage collection, or a reduction of insect life. Some cities know where to expect venereal disease, and just where childhood epidemics get started and spread. The exact basis of influenza epidemics is still largely undiscovered, as are the causes of bad colds which may reduce industrial employment seriously during the winter months. Each community should have its public health research clinics, so that surveys and special researches could be constantly carried on for the benefit of all.

Some of the types of training needed in this type of service are the following:

- a. The usual medical subjects of bio-chemistry, parasitology, and bacteriology, carried on to the extent of graduate or advanced study. This means one or more years of post-graduate training with the M.A. or Ph.D. degree as a goal. It implies a thorough mastery of physiology, and quantitative analysis in chemistry with some background in physical chemistry and physics beyond the usual elements in these subjects.
- b. A knowledge of German and/or French or Russian so that one can keep up to date on world progress in public health, and read the current medical and other scientific journals in other languages.
- c. A grasp of proper statistical methods so that one can understand what is meant by a "significant difference" in results found in one community as compared to another, or so that one can run an exact correlation index between the incidence of a disease and other criteria. For example, to what extent is there a correlation between poverty and the outcropping of some epidemic? Frequently in the past good scientists have been led astray by a few chance results where insufficient statistical treatment of additional data would have revealed entirely different conclusions.
- d. Above all, a research inclination, or the willingness and desire to carry on independent investigations often for months or years with little chance of sudden spectacular results. Often slight variations of chemical formulae are tried out on several animals hundreds of times before clues are discovered as to the curative power of an organic compound. The average doctor is unqualified by temperament to persist for a long enough time to reach sound conclusions. Fields which can stand much exploration and advancement

seem to be those of school dentistry, and school nursing, by which is meant the attention to preventive measures in the school towards better health. Several studies suggest that relatively little money spent in checking on the bodily needs of young children, and on warning parents of defects, can save national health immeasurably. The field of sanitation is on the verge of considerable expansion, not merely the inspection of markets, sewage disposal and the like, but the employment of professional or administrative types of civil servants who will educate people, or encourage a desire for good citizenship in the field of sanitation. Here is a combination of science, journalism and education.

The Editorial Secretary

In one city a school administrator remarked that five times as many girls were training to be stenographers as the city could absorb. This same man when choosing a secretary would not hire one of his own high school graduates. The reason for this tendency in non-business institutions as well as in business is that secretarial work has come to include more than routine stenography; in fact there are several branches or specializations. One may become an office manager, in charge of the work of other stenographers and typists, with only occasional shorthand work with a chief executive. Because of information acquired many stenographers are "kicked up stairs" into correspondence work with typists or bookkeepers working under them. They are the lieutenants or sub-executives. But there is also an editorial type of secretary, about which administrators are now inquiring, a person who can be trusted to work on important reports, who can collect data and write finished statements.

Why has there been an up-grading tendency in secretarial work? First there is the inevitable tendency in every field to get the best trained and brightest person available, and gen-

eral education serves as one evidence of ability. Secondly, executives are finding out that if they hire college trained people, they can hand over much work bodily that they would otherwise have to supervise very closely. Thirdly, as organizations grow in size reports and surveys often become important. Many executives find that they cannot write well; they do not think linguistically, but need interpreters or even translators of their ideas. "I want someone who can write my thoughts better than I can," remarked a very good executive to a college placement officer, and he was doubtless more effective because he realized his own limitations. Even Ph.D.-trained chemists in industry can benefit by people who can polish off bits of research writing so that they will be acceptable for publication or the company files.

A fourth reason for the need of better trained secretaries is the committee. Relatively few secretaries are good at transcribing the cross-fire discussions which go on in important committees. They often get snatches of conversation, but may neglect or distort important side remarks. Sentences are incomplete, or even words are displaced by gestures. To take good committee notes, to write them up clearly and acceptably requires a well trained and astute person. Many college graduates would not qualify for such work, usually because they do not have the background of a business well in hand, but they are much more likely to do well than a less educated person.

Editorially-minded secretaries may often be used as librarians, or as collectors of information from various sources. They usually read intelligently and can abstract what is important. They may serve several administrators, possibly as translators of foreign language reports.

A person who is really good in rewrite work must be not only a clear writer but well informed and well educated—with a good stock of substitute expressions. A rare com-

ination of personality traits is necessary in the type of person who does not care to be original herself but can rewrite in an interesting style the material presented by someone else. Publishing houses and newspapers can use this type of person, preferably of course young people who are not frustrated too much by re-corrections of their writing.

The kinds of equipment desirable for this type of upgrading in young people may be summarized somewhat as follows:

1. High speed and accurate stenography, as a starter in any office.
2. Accurate and facile use of English, including accepted idioms, punctuation, and varied vocabulary. This should equal the language ability of the average college graduate.
3. A grasp of business organization and methods, at least to the extent of a general course in economics and some business training.
4. Understanding the resources of a library, with special emphasis on certain kinds of subject matter (e.g. for a particular agency or business).

Socratic Teacher in College and High School

When the colleges began to fill up with men from the military services, the primary problem on the surface, was to find space. More serious, however, was the problem of finding good teachers. One very capable G. I. remarked, "I wanted badly to attend the college near my home town, but when I found that in four out of five classes the teachers were not experts, in fact were pretty poor in teaching, I gave up and decided to find a job." Inspiring teaching can take many forms, but perhaps the most rare is that of the good discussion leader who follows to some extent the methods of the philosopher Socrates. He taught men to think by continual questions or by asking people to analyze their own statements.

Nearly every student has had two or three teachers of this sort in high school or college, but rarely more than a very few. Often such teachers are not enjoyed by timid students; they expect participation from everyone and they are not satisfied with memorized answers, or routine reciting from a text book. In an economics class of thirty-five students attended by the writer, everyone was keyed up, actually fearful that he would be the next object of close questioning by the professor. Often simple statements were challenged, "Just what do you mean by that?" until students became very cautious in their analysis and expression. There was no lackadaisical complacency. On the other hand, no one was absent because he could not afford to miss important points. Several years after graduation a group of this man's students remarked among themselves, "Here was the outstanding teacher; when we forget everything else we got out of college, we will still recall some of his methods and major ideas." Above all, they were taught to be sparing of loose generalizations which they could not support by reasonably good evidence.

Unfortunately the good Socratic teacher has been lost sight of in many colleges because of the size of classes. More important to college administrators has been the large class lecturer, the person who can hold the attention of and discipline over one hundred or more students—as one cynic put it, "the well written book wired to sound." Actually if students were alert in their reading much of what they hear through the lecture method could be dispensed with; it is already available. The good, questioning leader of discussion, the thought provoking challenger is rarer and far more essential if students are to be "educated" in the literal sense (led forth and developed).

The preparation for such a capacity is hard to obtain. Perhaps it is more a matter of personality, the chance development of skills and attitudes from early family and social ex-

perience. Has a person been brought up in a family which challenges one? Has he attended a Sunday School class or club with an atmosphere of reasoning and give-and-take conversationally? Has he exchanged wit and wise-cracks with others, without slander or excessive emotion?

Many teachers' colleges lay more stress on content than on the method of instruction. They want students to know principles which are down in books, but they do not take the time to develop important personality traits, attitudes and types of behavior. However, a well organized set of courses in educational theory and practice is one of the best provisions we have for teacher preparation. People should be properly selected for the profession of teaching, with due consideration of personality traits.

In addition to courses in educational theory and practice, the person should seek every opportunity to practice the Socratic techniques. Join a debating group, ask to be allowed to teach a Sunday School class, or assist in handling a Scout troop. This does not mean that one will dominate others; one must develop courtesy and good sense as a part of learning to help others think.

Foreman Specialist in Modern Industry

In a symposium of leaders in the industrial relations field, in 1946, the chief topic of discussion was on the nature of leadership in the industrial plant of today. A good deal of the discussion centered on the analysis of the obligations of the foreman. It was recognized that foremen have an almost impossible job, that of following the dictates of those who are their superiors, and also getting on with those under them in industrial rank. In many cases the foreman has under him, or in close co-operation, high grade specialists—cost accountants, engineers and various technologists. He cannot dictate, but must manage to satisfy their needs. This calls for an all around

understanding of plant operations which few foremen today possess. As a consequence foremen suffer from insecurity; some compensate by volubility; others may become sullen and avoids the fullest co-operation with the experts. The foreman, says Roethlisberger* is left "holding the bag" in the inevitable conflict of many points of view.

The solution to all this difficulty is a general up-grading in the position of the foreman. He should be better trained, especially with respect to the social sciences and in problems of administration. He should be a more highly educated man on the average. He is being referred to as "the new administrator," since he must evaluate in their place problems of organization of business, problems of communication and of morale. He cannot afford to pet men, or be influenced unduly by the emotions of his superiors. He must have a place, and deal with facts and figures objectively. In a large department a foreman cannot afford to be a 'lead' man who merely shows men how to do their work. He will have instructors or lead men under him. He must take the brunt of bad routing of materials by management, disagreements between unions and innumerable other dislocations. This is a part of administration, but he must also have clear cut responsibilities and a salary scale in proportion to his value.

Some of the best foremen will doubtless always come up through ranks of workers, perhaps nearly all of them. But they should have outside educational opportunities, on a part time or co-operative basis arranged by industry and colleges, or advanced technological institutes. A more completely adequate background would include industrial engineering courses, through the B.S. degree; a good background of study in the fundamentals of business organization; courses in industrial and social psychology and some sociology.

* Schuler Haslett, Ed. "Human Factors in Management," p. 67.

He might be equipped with the newer techniques of counseling, including the non-directive approach, and some knowledge of clinical psychology.

More important than any education, however, is a well controlled temperament, and an interest in helping people. He must be approachable, a man with whom one can argue. He should know how to deal reasonably with trouble makers, and men who act queerly because of anxieties at home.

Occupations are Unlimited

The varieties of occupations described above are merely samples of the many promising fields of profitable employment. This list could be substantially expanded by any guidance worker. Out of these many areas, each person must choose for himself the general direction of his future activity. His personality and character traits will then direct or channel his energy along certain lines of emphasis in that field of work. Occupational dictionaries today list a total of more than 20,000 occupations. As we have repeatedly implied, however, the variety of forms which occupations take greatly enlarges this number. The higher the level of occupation, the greater will be its variability and the more infinite its possibilities of expansion.

Generally speaking, when a person expands in his occupational area, when he stretches to conform to the best needs of his community as well as his own potentialities, he will find the greatest satisfaction in his life work. Sometimes, one occupational area seems insufficient and a person needs two or more areas of expansion. Career women with families exemplify this need as do many men. A business expert may want to be a technical authority or professional consultant for many firms, he may want recognition as a writer, or he may also feel the desire to initiate some venture in the business world, e.g., handling a new and different type of industrial consolidation or integration. A doctor may be dissatisfied with private practice

without some accompanying teaching or research.

The occupational frontiers of the future lie primarily within the individual and depend on his personality traits. What does he have the urge to do? Where can he satisfy his curiosities and find more solid satisfaction? Of course it is possible that hobbies and avocational experience may satisfy the urge for variety and personality growth, but most men do not realize the possibilities in their own jobs. They complacently settle into ruts and think in terms of stereotypes.

In summary then, nearly all occupations can stand development of up-grading in the direction of a fuller and happier life. Thorough analysis of all phases of our work may show areas of potential growth. Changing the occupational designation or otherwise altering the viewpoint of those concerned sometimes affects morale and affords new insights. General or specialized education may play a leading part, chiefly because such a certified background may be the entering requirement for consideration by employers or professional groups, but also because of the information and general attitudinal backgrounds one may acquire. Most fields of work also demand specialized training for the development of skills, and this makes up most of what goes under the heading of experience. Several studies of job analysis show that the items, experience and education, correlate more highly with financial success than any other factors, in some cases more than all other factors combined.

Finally, we have indicated that personality and character traits have a great deal to do with occupational horizons. "The job is there within your grasp if you are man enough to fill it," said the vice-president of a large firm to his assistant whom he was grooming for an important administrative post. The semi-skilled job can often be changed in the direction of greater skill or in the direction of supervising others; the highly skilled job,

towards artistry or the acquisition of changing techniques. Many service jobs, or semi-professional business occupations can be professionalized through refinements, further education, and a sense of responsibility. As one climbs the ladder of occupational complexity, these opportunities for development are, of course, increasingly present. The able high school or college graduate has a considerable amount of choice in his own occupational destiny; enough so that the chance for further expansion is always there.

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